


# CONTINUOUS BASELINE STUDY

Project 1108-13

Progress Report 116

to

FOURDRINIER KRAFT BOARD INSTITUTE, INC.

March 1, 1957

THE INSTITUTE OF PAPER CHEMISTRY

Appleton, Wisconsin

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In conjunction with the F.K.I. Continuous Baseline Study, The Institute of Paper Chemistry has been directed to identify the participating mills by means of a scrambled system of code letters. Under this system, which was initiated in Progress Report 105, each mill is identified by a code letter different from that used for the previous month.

During the period from February 1 to February 28, eighty-four different sample lots of 42-lb. Fourdrinier kraft linerboard were submitted by sixteen different F.K.I. mills to The Institute of Paper Chemistry for testing. In addition, three samples of drum linerboard and one sample of miscellaneous linerboard were submitted for evaluation by one of the participating mills; the results for this sample are tabulated separately. A tabulation of the number of samples classified according to mill may be seen in Table I.

TABLE I

DISTRIBUTION OF 42-LB. LINERBOARD SAMPLES

| Mill Code | Samples Submitted |
|---|---|
| A | 8 |
| B | 0 |
| C | 6 |
| D | 7 |
| E | 6 |
| F | 3 |
| G | 3 |
| H | 5 |
| I | 6 |
| J | 2 |
| K | 4 |
| L | 5 |
| M | 5 |
| N | 8 |
| O | 3 |
| P | 4 |
| Q | 0 |
| S | 9 |
| Total | 84 |

These sample lots were tested for basis weight, caliper, bursting strength, and Elmendorf tear. The average strength results for each mill may be seen in Table II and are graphically presented in Figures 1 to 5. In addition to a comparison of the mill averages for the various tests, Table II also shows the current F.K.I. averages, the cumulative F.K.I. averages, and the F.K.I. indexes. The cumulative F.K.I. average is based on the results for the previous twelve months excluding the current period. Hence, in the case of the current report, it covers the period from February 1, 1956, to January 31, 1957. The F.K.I. indexes are obtained as follows:

$$\frac{\text{current F.K.I. average}}{\text{cumulative F.K.I. average}} \times 100 = \text{F.K.I. index (\%)}$$

The F.K.I. index provides a ready means of comparing the current quality with previous results. For example, the current F.K.I. average basis weight is 43.1 lb., and the cumulative F.K.I. average basis weight is 43.0 lb. Hence, the index for basis weight determined in per cent as indicated above is 100.2. This signifies that the current average basis weight is slightly higher than the cumulative average.

A comparison of the results in Table II and Figure 1 shows that the average basis weight results for all mills conform to the 42-lb. specification set forth in Rule 41. Mill D had the highest average basis weight, it being 44.4 lb. or approximately 5.7% higher than the 42-lb. specification. On the other hand, Mill O had the lowest average basis weight, it being 42.2 lb. or approximately 0.5% higher than the 42-lb. specification.

The amount by which the mills vary from the 42-lb. specification is as follows:

| Mill Code | Per Cent |
|---|---|
| A | +1.7 |
| B | -- |
| C | +3.8 |
| D | +5.7 |
| E | +2.1 |
| F | +4.8 |
| G | +3.8 |
| H | +1.9 |
| I | +3.8 |
| J | +1.2 |
| K | +1.2 |
| L | +1.2 |
| M | +4.5 |
| N | +1.7 |
| O | +0.5 |
| P | +1.7 |
| Q | -- |
| S | +3.1 |

A comparison of the average basis weight data for the previous period with the current F.K.I. average indicates that the basis weight results have remained at the same level--i.e., 43.1 lb.

A comparison of the average caliper values for the various mills (see Figure 2) shows that the mill averages vary from a low of 11.7 points for Mill J to a high of 13.7 points for Mill K. The current F.K.I. average is 12.8 points, slightly higher than the cumulative F.K.I. average of 12.7 points.

The average bursting strength values obtained for each mill are graphically presented in Figure 3. It may be observed in Table II and Figure 3 that the average bursting strength values for the various mills

range from a low of 100 for Mill K to a high of 114 for Mill E. The current F.K.I. average bursting strength is 109 p.s.i.g., the same as the cumulative F.K.I. average.

A graphic comparison of the Elmendorf tear results for the various mills is given in Figures 4 and 5. The data of Table II show that Mill F had the highest average machine direction tear value of 398 units whereas Mill O had the lowest value of 280 units. Mills D and J shared the highest cross-machine direction tear value of 407 units; Mill O had the lowest value of 336 units. It may be noted that the current F.K.I. average machine direction and cross-machine direction tear results are only slightly lower than the cumulative averages.

A comparison of the F.K.I. indexes indicates that, for the current period, the current F.K.I. average for bursting strength is the same as the cumulative F.K.I. average, whereas the current F.K.I. averages for basis weight and caliper are slightly higher than the cumulative averages, and the current F.K.I. averages for machine direction and cross-machine direction Elmendorf tear are slightly lower than the respective cumulative F.K.I. averages.

In order to compare the variation within a given mill, the test results for each particular mill have been tabulated in Tables III to XX for mills A to S, respectively. In addition to the current and cumulative averages, the mill factor and mill index are given for each mill. The cumulative mill average is the average test result obtained on the samples submitted by the particular mill for the previous twelve months excluding the current period. The mill factor and the mill index are obtained as follows:

$$\frac{\text{current mill average}}{\text{cumulative mill average}} \times 100 = \text{mill factor (\%)}$$

$$\frac{\text{current mill average}}{\text{cumulative F.K.I. average}} \times 100 = \text{mill index (\%)}$$

The mill factor and the mill index serve as a ready means for comparing the current mill results either with the previous results for that particular mill or with the cumulative F.K.I. results. The reports also contain a comparison of the test data obtained at the mills with test data obtained at The Institute of Paper Chemistry.

The results obtained on the special drum stock may be seen in Table XXI.

It may be noted in Tables III through XXI that the test data include information about the sheet finish. The summarized results for the mills which submitted sample lots during the current period are as follows:

| Mill Code | No. of Sample Lots W.F. | D.F. | Misc. |
|---|---|---|---|
| A | 8 | | |
| B | 0 | | |
| C | 6 | | |
| D | 7 | | |
| E | 6 | | |
| F | 3 | | |
| G | 3[a] | | |
| H | 5 | | |
| I | 6 | | |
| J | 2[a] | | |
| K | 4[a] | | |
| L | 5[a] | | |
| M | 5 | | |
| N | 8 | | |
| O | 3[a] | | |

| Mill Code | No. of Sample Lots W.F. | D.F. | Misc. |
|---|---|---|---|
| P | 4 | | |
| Q | 0 | | |
| S | 9 | | |
| R[b] | 3 | | |

[a] One side only
[b] Drum linerboard

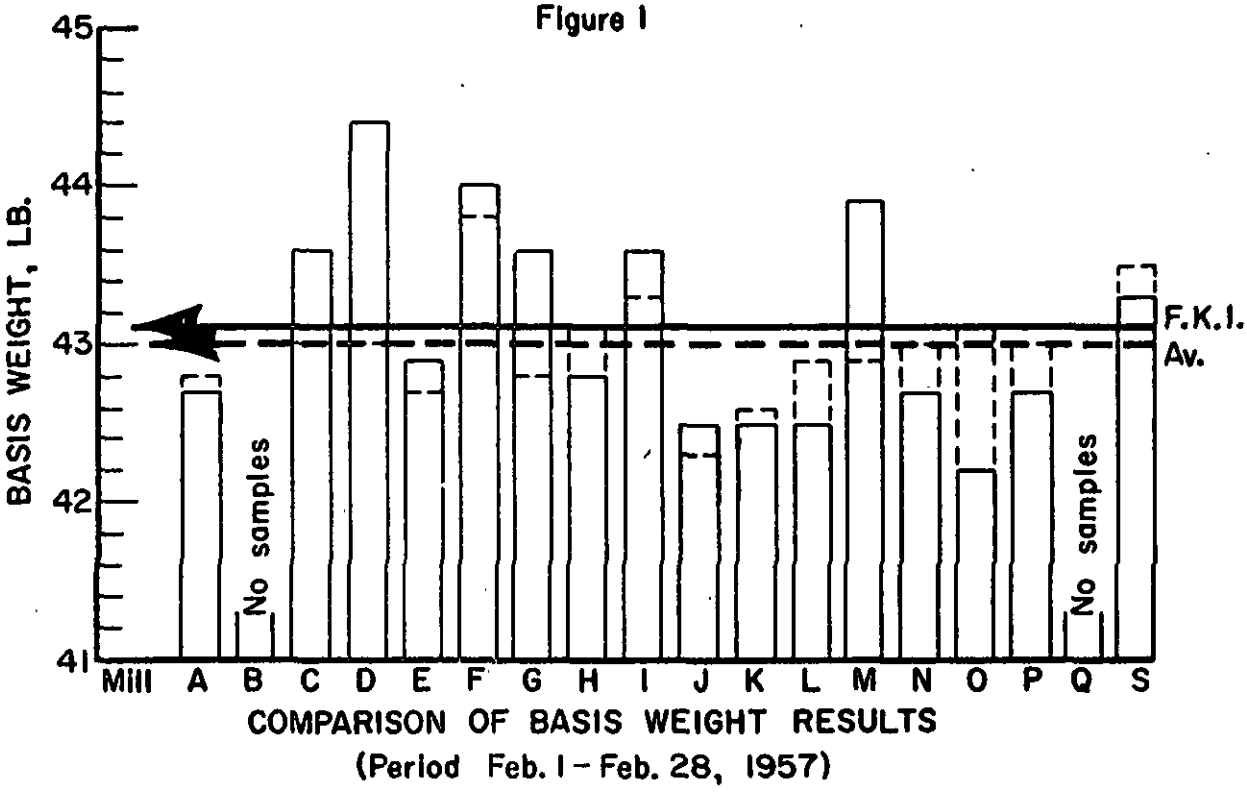
The results indicate that a majority of the mills are using a water finish on their 42-lb. linerboard.

TABLE II

SUMMARY OF COMPOSITE MILL AVERAGES--FEBRUARY 1 THROUGH FEBRUARY 28, 1957

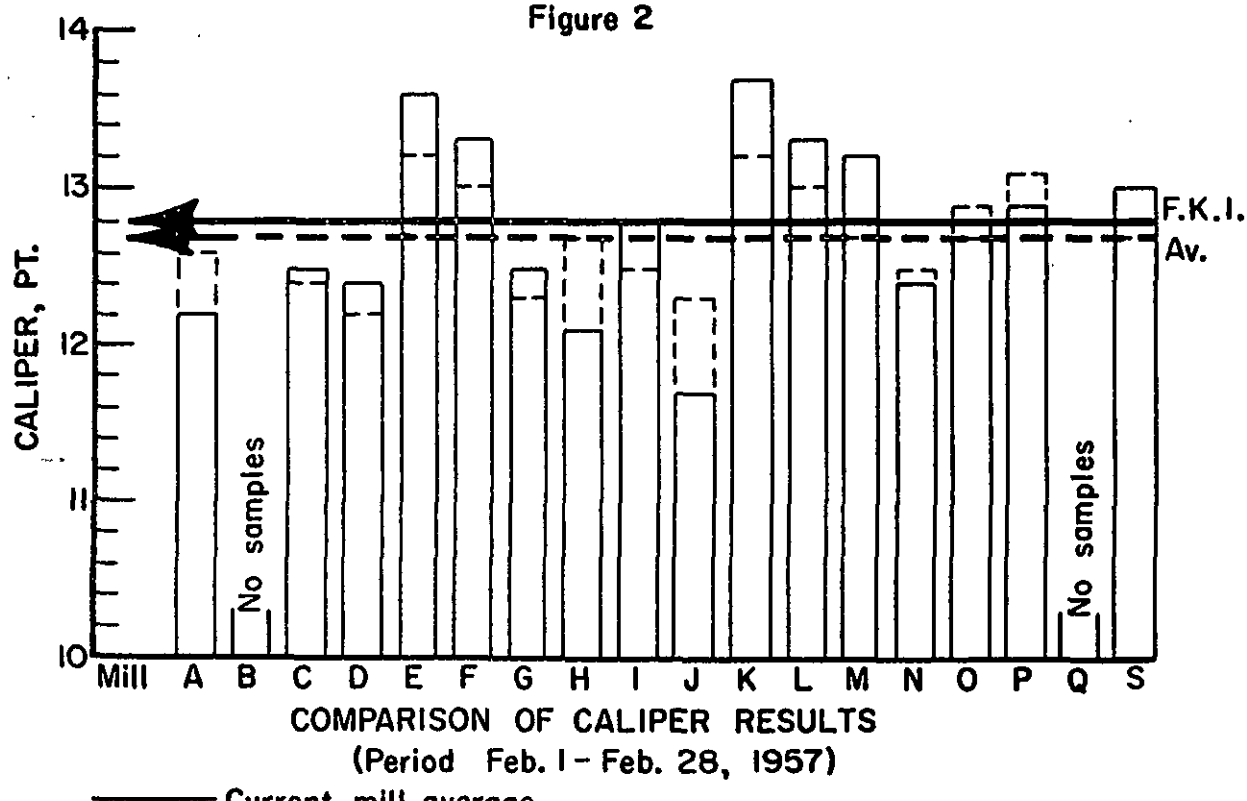
| Mill | Basis Weight, lb. | Caliper, points | Bursting Strength, p.s.i. gage | Elmendorf Tear, g./sheet | |
|---|---|---|---|---|---|
| | | | | In Machine | Cross Machine |
| A | 42.7 | 12.2 | 106 | 344 | 355 |
| B | No samples submitted. | | | | |
| C | 43.6 | 12.5 | 109 | 328 | 374 |
| D | 44.4 | 12.4 | 111 | 375 | 407 |
| E | 42.9 | 13.6 | 114 | 310 | 371 |
| F | 44.0 | 13.3 | 105 | 398 | 399 |
| G | 43.6 | 12.5 | 107 | 317 | 370 |
| H | 42.8 | 12.1 | 111 | 295 | 341 |
| I | 43.6 | 12.8 | 108 | 316 | 368 |
| J | 42.5 | 11.7 | 111 | 370 | 407 |
| K | 42.5 | 13.7 | 100 | 328 | 350 |
| L | 42.5 | 13.3 | 113 | 332 | 366 |
| M | 43.9 | 13.2 | 111 | 354 | 394 |
| N | 42.7 | 12.4 | 113 | 338 | 370 |
| O | 42.2 | 12.7 | 106 | 280 | 336 |
| P | 42.7 | 12.9 | 110 | 372 | 378 |
| Q | No samples submitted. | | | | |
| S | 43.3 | 13.0 | 111 | 361 | 377 |
| Current FKI Average: | 43.1 | 12.8 | 109 | 339 | 373 |
| Cumulative FKI Average: | 43.0 | 12.7 | 109 | 340 | 374 |
| FKI Index, % | 100.2 | 100.8 | 100.0 | 99.7 | 99.7 |

Figure 1




COMPARISON OF BASIS WEIGHT RESULTS
(Period Feb. 1 - Feb. 28, 1957)

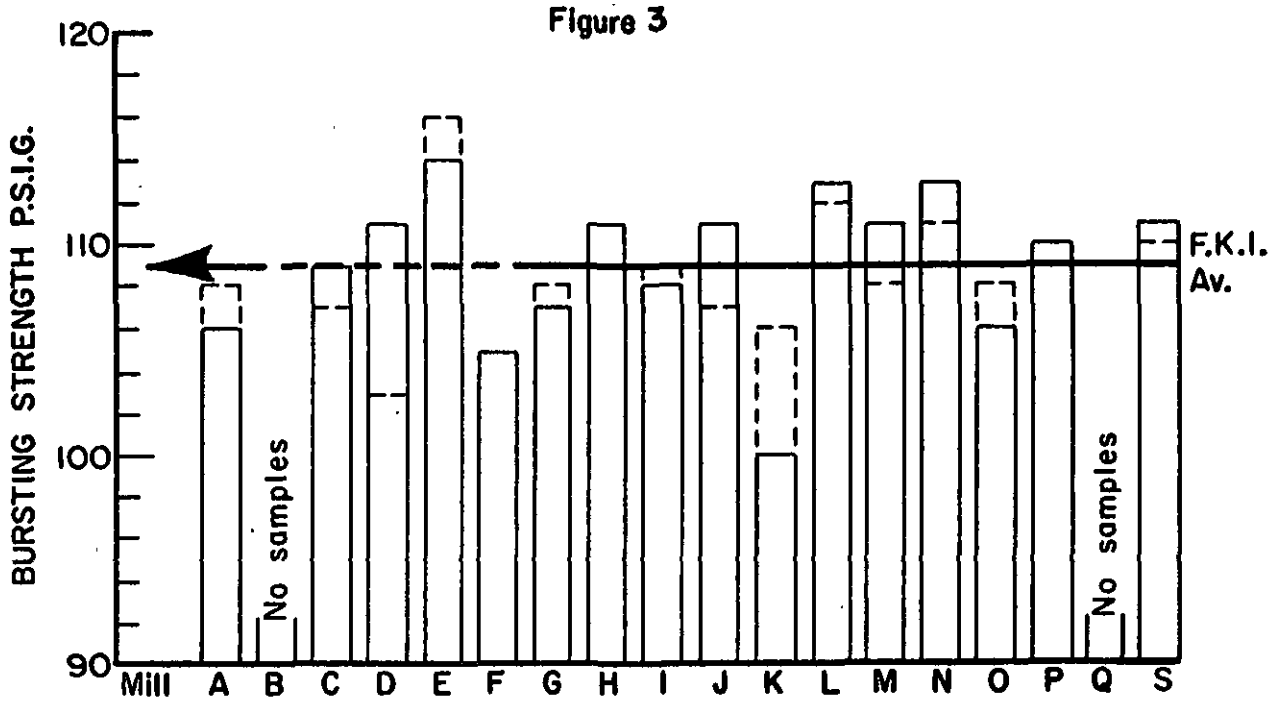
Figure 2




COMPARISON OF CALIPER RESULTS
(Period Feb. 1 - Feb. 28, 1957)

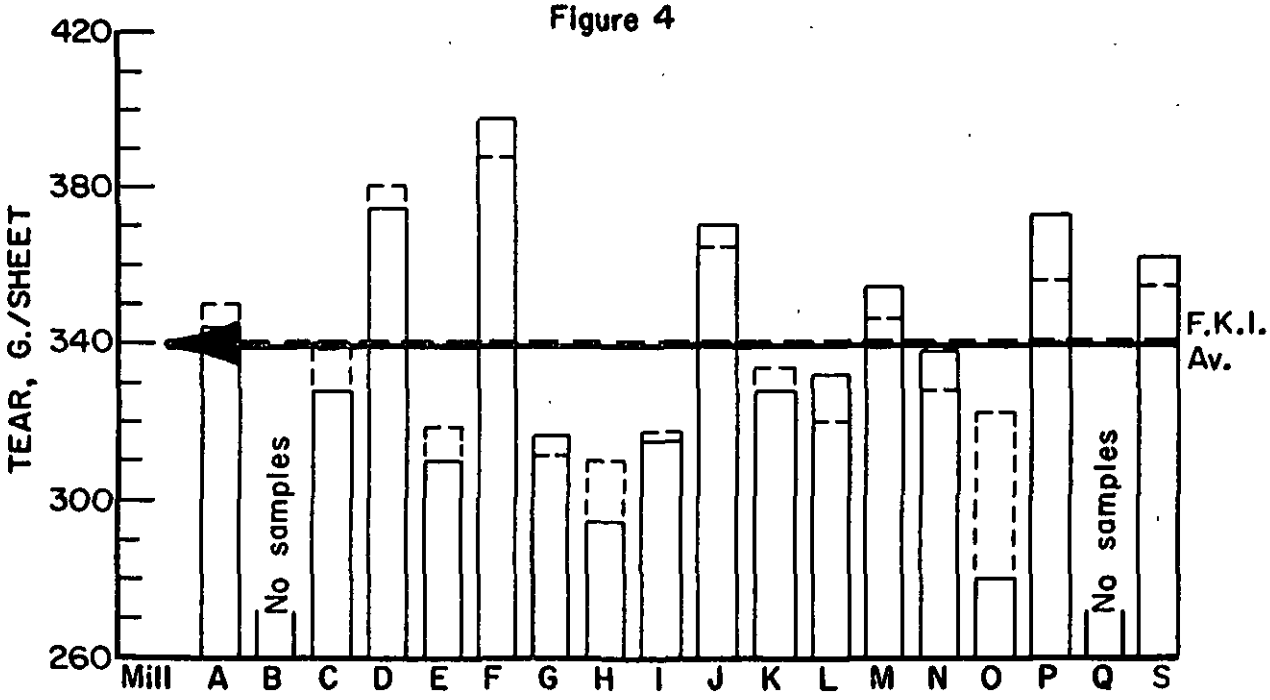
——— Current mill average
- - - - - Cumulative mill average

Figure 3




COMPARISON OF BURSTING STRENGTH RESULTS
(Period Feb. 1 - Feb. 28, 1957)

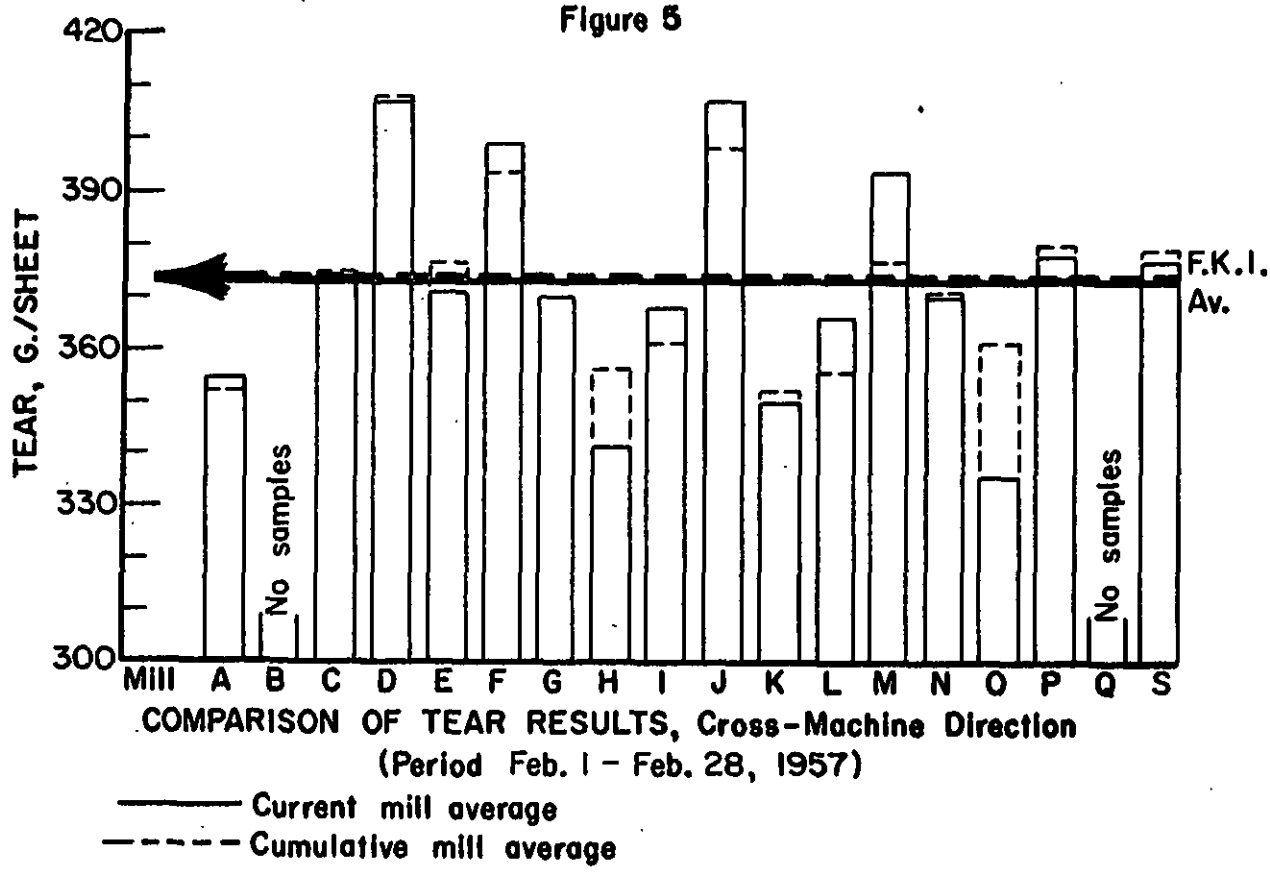
Figure 4




COMPARISON OF TEAR RESULTS, Machine Direction
(Period Feb. 1 - Feb. 28, 1957)

——— Current mill average
- - - - - Cumulative mill average

Figure 5




COMPARISON OF TEAR RESULTS, Cross-Machine Direction
(Period Feb. 1 - Feb. 28, 1957)

——— Current mill average
– – – – Cumulative mill average

SUMMARY OF INSTITUTE DATA--FEBRUARY 1 THROUGH FEBRUARY 28, 1957

TABLE III

MILL A -- 42-LB. LINERBOARD

| File No. | Finish | Date Recd. | Date Made | Mch. No. | Basis Weight, lb. | | | Caliper, points | | | Bursting Strength, p.s.i. gage | | | Elmendorf Tear, g./sheet | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | In | | | Across | | |
| | | | | | Max. | Min. | Av. | Max. | Min. | Av. | Max. | Min. | Av. | Max. | Min. | Av. | Max. | Min. | Av. |
| 173352 | W.F. | 2/ 4/57 | 1/25/57 | - | 43.8 | 40.2 | 42.2 | 13.0 | 11.7 | 12.3 | 126 | 86 | 106 | 456 | 320 | 385[a] | 432 | 328 | 375[a] |
| 173353 | W.F. | 2/ 4/57 | 1/27/57 | - | 44.0 | 41.4 | 43.2 | 12.6 | 11.1 | 11.8 | 127 | 93 | 115 | 392 | 344 | 366[a] | 424 | 360 | 394[a] |
| 173387 | W.F. | 2/14/57 | 2/ 3/57 | - | 44.2 | 42.2 | 43.8 | 12.9 | 11.0 | 12.0 | 137 | 91 | 114 | 400 | 304 | 355[a] | 432 | 360 | 392[a] |
| 173388 | W.F. | 2/14/57 | 2/ 3/57 | - | 43.8 | 41.6 | 42.3 | 12.5 | 11.5 | 12.0 | 124 | 92 | 108 | 392 | 296 | 354[a] | 400 | 336 | 373[a] |
| 173415 | W.F. | 2/18/57 | 2/11/57 | - | 45.2 | 41.8 | 43.0 | 13.1 | 11.8 | 12.5 | 122 | 83 | 100 | 400 | 280 | 347[a] | 368 | 296 | 327[a] |
| 173416 | W.F. | 2/18/57 | 2/11/57 | - | 44.4 | 41.6 | 42.8 | 13.3 | 11.9 | 12.5 | 118 | 82 | 102 | 368 | 280 | 325[a] | 384 | 312 | 339[a] |
| 173479 | W.F. | 2/25/57 | 2/18/57 | - | 43.6 | 41.6 | 42.3 | 12.8 | 11.8 | 12.1 | 122 | 88 | 103 | 352 | 256 | 300[a] | 368 | 272 | 319[a] |
| 173480 | W.F. | 2/25/57 | 2/18/57 | - | 42.4 | 41.6 | 42.0 | 12.9 | 11.8 | 12.3 | 124 | 64 | 102 | 384 | 264 | 321[a] | 392 | 280 | 319[a] |
| Current Mill Average: | | | | | | | 42.7 | | | 12.2 | | | 106 | | | 344 | | | 355 |
| Cumulative Mill Average: | | | | | | | 42.8 | | | 12.6 | | | 108 | | | 350 | | | 352 |
| Mill Factor, % | | | | | | | 99.8 | | | 96.8 | | | 98.1 | | | 98.3 | | | 100.9 |
| Mill Index, % | | | | | | | 99.3 | | | 96.1 | | | 97.2 | | | 101.2 | | | 94.9 |

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

SUMMARY OF INSTITUTE DATA--FEBRUARY 1 THROUGH FEBRUARY 28, 1957 (continued)

TABLE IV

MILL B -- 42-LB. LINERBOARD

| File No. | Finish | Date Recd. | Date Made | Mch. No. | Basis Weight, lb. | | | Caliper, points | | | Bursting Strength, p.s.i. gage | | | Elmendorf Tear, g./sheet | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | In | | | Across | | |
| | | | | | Max. | Min. | Av. | Max. | Min. | Av. | Max. | Min. | Av. | Max. | Min. | Av. | Max. | Min. | Av. |
| No samples submitted. | | | | | | | | | | | | | | | | | | | |

TABLE V

MILL C -- 42-LB. LINERBOARD

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 173331 | W.F. | 2/ 1/57 | 1/22/57 | 2 | 44.0 | 43.8 | 43.9 | 13.0 | 12.8 | 12.9 | 140 | 90 | 110 | 368 | 280 | 325 | 416 | 328 | 378[a] |
| 173332 | W.F. | 2/ 1/57 | 1/22/57 | 2 | 43.8 | 42.6 | 43.5 | 13.1 | 12.1 | 12.6 | 138 | 88 | 108 | 384 | 272 | 349 | 424 | 344 | 383[a] |
| 173358 | W.F. | 2/ 5/57 | 1/31/57 | 2 | 44.0 | 42.2 | 43.5 | 12.7 | 12.0 | 12.2 | 130 | 95 | 111 | 336 | 288 | 313[a] | 416 | 336 | 366[a] |
| 173359 | W.F. | 2/ 5/57 | 1/31/57 | 2 | 44.2 | 43.0 | 43.7 | 12.8 | 12.1 | 12.5 | 130 | 83 | 107 | 360 | 272 | 323 | 432 | 336 | 356[a] |
| 173372 | W.F. | 2/11/57 | 2/ 3/57 | 2 | 44.0 | 43.0 | 43.5 | 12.6 | 12.0 | 12.2 | 143 | 93 | 113 | 368 | 280 | 319[a] | 416 | 344 | 364[a] |
| 173373 | W.F. | 2/11/57 | 2/ 3/57 | 2 | 44.0 | 43.0 | 43.7 | 12.9 | 12.2 | 12.6 | 138 | 78 | 106 | 408 | 288 | 341[a] | 432 | 368 | 397[a] |
| Current Mill Average: | | | | | | | 43.6 | | | 12.5 | | | 109 | | | 328 | | | 374 |
| Cumulative Mill Average: | | | | | | | 43.0 | | | 12.4 | | | 107 | | | 340 | | | 375 |
| Mill Factor, % | | | | | | | 101.4 | | | 100.8 | | | 101.9 | | | 96.5 | | | 99.7 |
| Mill Index, % | | | | | | | 101.4 | | | 98.4 | | | 100.0 | | | 96.5 | | | 100.0 |

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

SUMMARY OF INSTITUTE DATA--FEBRUARY 1 THROUGH FEBRUARY 28, 1957 (continued)

TABLE VI

MILL D -- 42-LB. LINERBOARD

| File No. | Finish | Date Recd. | Date Made | Mch. No. | Basis Weight, lb. | | | Caliper, points | | | Bursting Strength, p.s.i. gage | | | Elmendorf Tear, g./sheet | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | In | | | Across | | |
| | | | | | Max. | Min. | Av. | Max. | Min. | Av. | Max. | Min. | Av. | Max. | Min. | Av. | Max. | Min. | Av. |
| 173376 | W.B. | 2/11/57 | 1/19/57 | - | 46.4 | 43.6 | 44.5 | 12.9 | 12.1 | 12.5 | 142 | 85 | 111 | 400 | 312 | 371 | 440 | 368 | 401[a] |
| 173377 | W.B. | 2/11/57 | 1/15/57 | - | 44.2 | 41.8 | 42.9 | 12.8 | 11.7 | 12.1 | 127 | 83 | 105 | 424 | 320 | 359[a] | 448 | 360 | 400[a] |
| 173378 | W.B. | 2/11/57 | 1/20/57 | - | 46.0 | 43.0 | 44.5 | 13.2 | 12.3 | 12.8 | 132 | 97 | 111 | 504 | 344 | 402[a] | 448 | 392 | 415[a] |
| 173379 | W.B. | 2/11/57 | 1/22/57 | - | 46.0 | 44.0 | 45.1 | 13.0 | 12.2 | 12.5 | 131 | 89 | 113 | 400 | 352 | 377 | 480 | 352 | 415[a] |
| 173380 | W.B. | 2/11/57 | 1/26/57 | - | 48.0 | 44.0 | 45.4 | 12.9 | 12.0 | 12.3 | 132 | 95 | 115 | 400 | 336 | 371 | 480 | 368 | 417[a] |
| 173437 | W.B. | 2/19/57 | 1/28/57 | - | 45.4 | 43.2 | 44.2 | 12.9 | 11.8 | 12.2 | 138 | 87 | 110 | 464 | 320 | 365[a] | 448 | 336 | 395[a] |
| 173438 | W.B. | 2/19/57 | 1/31/57 | - | 46.2 | 42.4 | 44.1 | 12.5 | 12.0 | 12.2 | 134 | 90 | 112 | 472 | 336 | 378[a] | 456 | 352 | 405[a] |
| Current Mill-Average: | | | | | | | 44.4 | | | 12.4 | | | 111 | | | 375 | | | 407 |
| Cumulative Mill Average: | | | | | | | 43.0 | | | 12.2 | | | 103 | | | 380 | | | 408 |
| Mill Factor, % | | | | | | | 103.3 | | | 101.6 | | | 107.8 | | | 98.7 | | | 99.8 |
| Mill Index, % | | | | | | | 103.3 | | | 97.6 | | | 101.8 | | | 110.3 | | | 108.8 |

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

SUMMARY OF INSTITUTE DATA--FEBRUARY 1 THROUGH FEBRUARY 28, 1957 (continued)

TABLE VII

MILL E -- 42-LB. LINERBOARD

| File No. | Finish | Date Recd. | Date Made | Mch. No. | Basis Weight, lb. | | | Caliper, points | | | Bursting Strength, p.s.i. gage | | | Elmendorf Tear, g./sheet | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | In | | | Across | | |
| | | | | | Max. | Min. | Av. | Max. | Min. | Av. | Max. | Min. | Av. | Max. | Min. | Av. | Max. | Min. | Av. |
| 173341 | W.F. | 2/ 1/57 | 1/ 7/57 | 1 | 44.2 | 42.0 | 43.5 | 14.8 | 13.1 | 13.9 | 145 | 93 | 121 | 368 | 272 | 315[a] | 432 | 320 | 379[a] |
| 173342 | W.F. | 2/ 1/57 | 1/11/57 | 1 | 44.2 | 42.0 | 43.4 | 14.7 | 12.6 | 13.5 | 141 | 109 | 119 | 384 | 280 | 319 | 424 | 328 | 375[a] |
| 173343 | W.F. | 2/ 1/57 | 1/15/57 | 1 | 43.8 | 42.0 | 42.8 | 14.8 | 13.2 | 14.0 | 137 | 74 | 110 | 352 | 256 | 299 | 384 | 352 | 366[a] |
| 173344 | W.F. | 2/ 1/57 | 1/19/57 | 1 | 42.0 | 41.4 | 41.9 | 13.9 | 12.7 | 13.3 | 127 | 96 | 112 | 328 | 248 | 288[a] | 368 | 304 | 347[a] |
| 173385 | W.F. | 2/13/57 | 1/25/57 | 1 | 44.4 | 42.6 | 43.6 | 14.6 | 12.6 | 13.6 | 137 | 88 | 115 | 384 | 304 | 336[a] | 416 | 360 | 381[a] |
| 173386 | W.F. | 2/13/57 | 1/30/57 | 1 | 43.4 | 41.6 | 42.3 | 14.3 | 12.6 | 13.4 | 127 | 87 | 109 | 352 | 272 | 300[a] | 416 | 352 | 377[a] |
| Current Mill Average: | | | | | | | 42.9 | | | 13.6 | | | 114 | | | 310 | | | 371 |
| Cumulative Mill Average: | | | | | | | 42.7 | | | 13.2 | | | 116 | | | 319 | | | 377 |
| Mill Factor, % | | | | | | | 100.5 | | | 103.0 | | | 98.3 | | | 97.2 | | | 98.4 |
| Mill Index, % | | | | | | | 99.8 | | | 107.1 | | | 104.6 | | | 91.2 | | | 99.2 |

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

SUMMARY OF INSTITUTE DATA--FEBRUARY 1 THROUGH FEBRUARY 28, 1957 (continued)

TABLE VIII

MILL F -- 42-LB. LINERBOARD

| File No. | Finish | Date Recd. | Date Made | Mch. No. | Basis Weight, lb. | | | Caliper, points | | | Bursting Strength, p.s.i. gage | | | Elmendorf Tear, g./sheet | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | In | | | Across | | |
| | | | | | Max. | Min. | Av. | Max. | Min. | Av. | Max. | Min. | Av. | Max. | Min. | Av. | Max. | Min. | Av. |
| 173364 | S.F. | 2/ 6/57 | 1/28/57 | 7 | 46.0 | 42.0 | 43.7 | 14.5 | 13.2 | 13.9 | 129 | 84 | 104 | 480 | 320 | 393[a] | 448 | 352 | 402[a] |
| 173409 | S.F. | 2/18/57 | 2/ 8/57 | 7 | 45.6 | 41.8 | 43.4 | 13.9 | 12.7 | 13.1 | 129 | 86 | 103 | 432 | 296 | 364[a] | 400 | 336 | 369[a] |
| 173452 | S.F. | 2/21/57 | 2/15/57 | 7 | 46.0 | 43.4 | 44.8 | 13.8 | 12.0 | 12.9 | 134 | 72 | 108 | 472 | 368 | 436 | 512 | 384 | 427[a] |
| Current Mill Average: | | | | | | | 44.0 | | | 13.3 | | | 105 | | | 398 | | | 399 |
| Cumulative Mill Average: | | | | | | | 43.8 | | | 13.0 | | | 105 | | | 388 | | | 394 |
| Mill Factor, % | | | | | | | 100.5 | | | 102.3 | | | 100.0 | | | 102.6 | | | 101.3 |
| Mill Index, % | | | | | | | 102.3 | | | 104.7 | | | 96.3 | | | 117.1 | | | 106.7 |

TABLE IX

MILL G -- 42-LB. LINERBOARD

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 173348 | WF1S | 2/ 4/57 | 1/25/57 | 1 | 44.0 | 43.0 | 43.8 | 13.2 | 12.0 | 12.6 | 127 | 90 | 110 | 344 | 256 | 308 | 432 | 336 | 375[a] |
| 173349 | WF1S | 2/ 4/57 | 1/28/57 | 1 | 44.0 | 43.0 | 43.8 | 13.1 | 12.0 | 12.5 | 124 | 85 | 106 | 400 | 264 | 313 | 408 | 336 | 364[a] |
| 173365 | WF1S | 2/ 8/57 | 1/31/57 | 1 | 43.8 | 42.2 | 43.3 | 13.1 | 12.0 | 12.3 | 117 | 85 | 104 | 384 | 272 | 330[a] | 408 | 336 | 372[a] |
| Current Mill Average: | | | | | | | 43.6 | | | 12.5 | | | 107 | | | 317 | | | 370 |
| Cumulative Mill Average: | | | | | | | 42.8 | | | 12.3 | | | 108 | | | 311 | | | 370 |
| Mill Factor, % | | | | | | | 101.9 | | | 101.6 | | | 99.1 | | | 101.9 | | | 100.0 |
| Mill Index, % | | | | | | | 101.4 | | | 98.4 | | | 98.2 | | | 93.2 | | | 98.9 |

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

SUMMARY OF INSTITUTE DATA--FEBRUARY 1 THROUGH FEBRUARY 28, 1957 (continued)

TABLE X

MILL H -- 42-LB. LINERBOARD

| File No. | Finish | Date Recd. | Date Made | Mch. No. | Basis Weight, lb. | | | Caliper, points | | | Bursting Strength, p.s.i. gage | | | Elmendorf Tear, g./sheet | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | In | | | Across | | |
| | | | | | Max. | Min. | Av. | Max. | Min. | Av. | Max. | Min. | Av. | Max. | Min. | Av. | Max. | Min. | Av. |
| 173345 | W.F. | 2/ 4/57 | 1/28/57 | 1 | 44.0 | 41.6 | 43.0 | 12.2 | 11.0 | 11.8 | 137 | 90 | 114 | 328 | 240 | 286[a] | 376 | 320 | 343[a] |
| 173346 | W.F. | 2/ 4/57 | 1/30/57 | 1 | 44.0 | 41.8 | 43.0 | 12.2 | 10.8 | 11.6 | 130 | 85 | 113 | 336 | 256 | 290 | 384 | 304 | 338[a] |
| 173393 | W.F. | 2/15/57 | 2/ 7/57 | 1 | 43.8 | 42.0 | 42.8 | 12.4 | 10.1 | 11.4 | 137 | 93 | 116 | 368 | 248 | 303 | 368 | 320 | 341[a] |
| 173482 | W.F. | 2/25/57 | 2/15/57 | 1 | 44.4 | 42.4 | 43.0 | 13.3 | 12.6 | 13.0 | 129 | 89 | 108 | 336 | 264 | 294[a] | 368 | 296 | 342[a] |
| 173483 | W.F. | 2/25/57 | 2/18/57 | 1 | 43.4 | 40.4 | 42.0 | 13.4 | 12.2 | 12.9 | 120 | 85 | 104 | 328 | 280 | 300 | 368 | 304 | 341[a] |
| Current Mill Average: | | | | | | | 42.8 | | | 12.1 | | | 111 | | | 295 | | | 341 |
| Cumulative Mill Average: | | | | | | | 43.1 | | | 12.7 | | | 111 | | | 310 | | | 357 |
| Mill Factor, % | | | | | | | 99.3 | | | 95.3 | | | 100.0 | | | 95.2 | | | 95.5 |
| Mill Index, % | | | | | | | 99.5 | | | 95.3 | | | 101.8 | | | 86.8 | | | 91.2 |

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

SUMMARY OF INSTITUTE DATA--FEBRUARY 1 THROUGH FEBRUARY 28, 1957 (continued)

TABLE XI

MILL I -- 42-LB. LINERBOARD

| File No. | Finish | Date Recd. | Date Made | Mch. No. | Basis Weight, lb. | | | Caliper, points | | | Bursting Strength, p.s.i. gage | | | Elmendorf Tear, g./sheet | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | In | | | Across | | |
| | | | | | Max. | Min. | Av. | Max. | Min. | Av. | Max. | Min. | Av. | Max. | Min. | Av. | Max. | Min. | Av. |
| 173339 | W.F. | 2/ 1/57 | 1/27/57 | 2 | 44.2 | 43.4 | 44.0 | 13.2 | 12.4 | 12.9 | 128 | 91 | 106 | 400 | 272 | 325[a] | 408 | 344 | 372[a] |
| 173340 | W.F. | 2/ 1/57 | 1/27/57 | 2 | 44.8 | 43.2 | 44.0 | 13.2 | 12.1 | 12.8 | 131 | 90 | 108 | 432 | 272 | 330[a] | 400 | 352 | 381[a] |
| 173374 | W.F. | 2/11/57 | 2/ 3/57 | 2 | 44.2 | 41.6 | 43.4 | 12.8 | 12.0 | 12.4 | 128 | 97 | 112 | 376 | 272 | 314[a] | 384 | 344 | 365[a] |
| 173375 | W.F. | 2/11/57 | 2/ 5/57 | 1 | 44.2 | 43.6 | 44.0 | 13.3 | 12.2 | 12.9 | 131 | 88 | 110 | 360 | 272 | 313[a] | 400 | 328 | 365[a] |
| 173413 | W.F. | 2/18/57 | 2/10/57 | 1 | 44.0 | 42.0 | 43.1 | 13.4 | 12.7 | 13.0 | 126 | 87 | 106 | 336 | 264 | 299 | 392 | 312 | 367[a] |
| 173414 | W.F. | 2/18/57 | 2/10/57 | 1 | 43.8 | 42.0 | 42.8 | 13.6 | 12.6 | 13.0 | 128 | 92 | 106 | 352 | 272 | 315 | 392 | 304 | 360[a] |
| Current Mill Average: | | | | | | | 43.6 | | | 12.8 | | | 108 | | | 316 | | | 368 |
| Cumulative Mill Average: | | | | | | | 43.3 | | | 12.5 | | | 109 | | | 318 | | | 361 |
| Mill Factor, % | | | | | | | 100.7 | | | 102.4 | | | 99.1 | | | 99.4 | | | 101.9 |
| Mill Index, % | | | | | | | 101.4 | | | 100.8 | | | 99.1 | | | 92.9 | | | 98.4 |

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

SUMMARY OF INSTITUTE DATA--FEBRUARY 1 THROUGH FEBRUARY 28, 1957 (continued)

TABLE XII

MILL J -- 42-LB. LINERBOARD

| File No. | Finish | Date Recd. | Date Made | Mch. No. | Basis Weight, lb. | | | Caliper, points | | | Bursting Strength, p.s.i. gage | | | Elmendorf Tear, g./sheet | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | In | | | Across | | |
| | | | | | Max. | Min. | Av. | Max. | Min. | Av. | Max. | Min. | Av. | Max. | Min. | Av. | Max. | Min. | Av. |
| 173347 | WF1S | 2/ 4/57 | 1/26/57 | 1 | 42.4 | 41.6 | 42.1 | 12.8 | 11.2 | 11.9 | 128 | 91 | 108 | 456 | 304 | 365[a] | 432 | 376 | 404[a] |
| 173360 | WF1S | 2/ 5/57 | 1/28/57 | 1 | 43.6 | 42.4 | 43.0 | 12.2 | 11.0 | 11.5 | 133 | 94 | 113 | 416 | 280 | 375[a] | 448 | 384 | 409[a] |
| Current Mill Average | | | | | | | 42.5 | | | 11.7 | | | 111 | | | 370 | | | 407 |
| Cumulative Mill Average | | | | | | | 42.3 | | | 12.3 | | | 107 | | | 365 | | | 398 |
| Mill Factor, % | | | | | | | 100.5 | | | 95.1 | | | 103.7 | | | 101.4 | | | 102.3 |
| Mill Index, % | | | | | | | 98.8 | | | 92.1 | | | 101.8 | | | 108.8 | | | 108.8 |

TABLE XIII

MILL K -- 42-LB. LINERBOARD

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 173335 | WF1S | 2/ 1/57 | 1/22/57 | 2 | 44.0 | 42.0 | 42.8 | 13.9 | 13.0 | 13.4 | 120 | 86 | 106 | 352 | 240 | 294[a] | 360 | 304 | 338[a] |
| 173394 | WF1S | 2/15/57 | 2/ 4/57 | 2 | 44.6 | 42.4 | 43.6 | 14.4 | 13.4 | 13.9 | 118 | 90 | 105 | 448 | 280 | 351[a] | 384 | 320 | 355[a] |
| 173395 | WF1S | 2/15/57 | 2/ 7/57 | 2 | 44.2 | 42.2 | 43.2 | 14.5 | 13.0 | 13.8 | 104 | 68 | 94 | 368 | 272 | 331[a] | 408 | 296 | 346[a] |
| 173439 | WF1S | 2/20/57 | 2/14/57 | 2 | 41.6 | 39.8 | 40.3 | 14.4 | 13.1 | 13.8 | 110 | 80 | 95 | 416 | 248 | 335[a] | 400 | 336 | 362[a] |
| Current Mill Average: | | | | | | | 42.5 | | | 13.7 | | | 100 | | | 328 | | | 350 |
| Cumulative Mill Average: | | | | | | | 42.6 | | | 13.2 | | | 106 | | | 334 | | | 352 |
| Mill Factor, % | | | | | | | 99.8 | | | 103.8 | | | 94.3 | | | 98.2 | | | 99.4 |
| Mill Index, % | | | | | | | 98.8 | | | 107.9 | | | 91.7 | | | 96.5 | | | 93.6 |

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

SUMMARY OF INSTITUTE DATA--FEBRUARY 1 THROUGH FEBRUARY 28, 1957 (continued)

TABLE XII

MILL J -- 42-LB. LINERBOARD

| File No. | Finish | Date Recd. | Date Made | Mch. No. | Basis Weight, lb. | | | Caliper, points | | | Bursting Strength, p.s.i. gage | | | Elmendorf Tear, g./sheet | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | In | | | Across | | |
| | | | | | Max. | Min. | Av. | Max. | Min. | Av. | Max. | Min. | Av. | Max. | Min. | Av. | Max. | Min. | Av. |
| 173347 | WF1S | 2/ 4/57 | 1/26/57 | 1 | 42.4 | 41.6 | 42.1 | 12.8 | 11.2 | 11.9 | 128 | 91 | 108 | 456 | 304 | 365[a] | 432 | 376 | 404[a] |
| 173360 | WF1S | 2/ 5/57 | 1/28/57 | 1 | 43.6 | 42.4 | 43.0 | 12.2 | 11.0 | 11.5 | 133 | 94 | 113 | 416 | 280 | 375[a] | 448 | 384 | 409[a] |
| Current Mill Average | | | | | | | 42.5 | | | 11.7 | | | 111 | | | 370 | | | 407 |
| Cumulative Mill Average: | | | | | | | 42.3 | | | 12.3 | | | 107 | | | 365 | | | 398 |
| Mill Factor, % | | | | | | | 100.5 | | | 95.1 | | | 103.7 | | | 101.4 | | | 102.3 |
| Mill Index, % | | | | | | | 98.8 | | | 92.1 | | | 101.8 | | | 108.8 | | | 108.8 |

TABLE XIII

MILL K -- 42-LB. LINERBOARD

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 173335 | WF1S | 2/ 1/57 | 1/22/57 | 2 | 44.0 | 42.0 | 42.8 | 13.9 | 13.0 | 13.4 | 120 | 86 | 106 | 352 | 240 | 294[a] | 360 | 304 | 338[a] |
| 173394 | WF1S | 2/15/57 | 2/ 4/57 | 2 | 44.6 | 42.4 | 43.6 | 14.4 | 13.4 | 13.9 | 118 | 90 | 105 | 448 | 280 | 351[a] | 384 | 320 | 355[a] |
| 173395 | WF1S | 2/15/57 | 2/ 7/57 | 2 | 44.2 | 42.2 | 43.2 | 14.5 | 13.0 | 13.8 | 104 | 68 | 94 | 368 | 272 | 331[a] | 408 | 296 | 346[a] |
| 173439 | WF1S | 2/20/57 | 2/14/57 | 2 | 41.6 | 39.8 | 40.3 | 14.4 | 13.1 | 13.8 | 110 | 80 | 95 | 416 | 248 | 335[a] | 400 | 336 | 362[a] |
| Current Mill Average: | | | | | | | 42.5 | | | 13.7 | | | 100 | | | 328 | | | 350 |
| Cumulative Mill Average: | | | | | | | 42.6 | | | 13.2 | | | 106 | | | 334 | | | 352 |
| Mill Factor, % | | | | | | | 99.8 | | | 103.8 | | | 94.3 | | | 98.2 | | | 99.4 |
| Mill Index, % | | | | | | | 98.8 | | | 107.9 | | | 91.7 | | | 96.5 | | | 93.6 |

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

SUMMARY OF INSTITUTE DATA--FEBRUARY 1 THROUGH FEBRUARY 28, 1957 (continued)

TABLE XIV

MILL L -- 42-LB. LINERBOARD

| File No. | Finish | Date Recd. | Date Made | Mch. No. | Basis Weight, lb. | | | Caliper, points | | | Bursting Strength, p.s.i. gage | | | Elmendorf Tear, g./sheet | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | In | | | Across | | |
| | | | | | Max. | Min. | Av. | Max. | Min. | Av. | Max. | Min. | Av. | Max. | Min. | Av. | Max. | Min. | Av. |
| 173333 | WF1S | 2/ 1/57 | 1/23/57 | 1 | 42.4 | 42.0 | 42.1 | 13.4 | 12.2 | 13.0 | 138 | 90 | 110 | 368 | 272 | 324[a] | 400 | 344 | 369[a] |
| 173334 | WF1S | 2/ 1/57 | 1/23/57 | 1 | 42.4 | 42.0 | 42.1 | 13.8 | 12.7 | 13.1 | 133 | 89 | 112 | 376 | 272 | 329[a] | 384 | 320 | 357[a] |
| 173371 | WF1S | 2/11/57 | 1/28/57 | 1 | 43.6 | 42.8 | 43.3 | 14.4 | 13.0 | 13.7 | 135 | 92 | 113 | 384 | 264 | 331[a] | 408 | 320 | 375[a] |
| 173450 | WF1S | 2/21/57 | 2/ 5/57 | 1 | 43.2 | 41.4 | 42.2 | 13.8 | 12.3 | 13.0 | 138 | 95 | 116 | 376 | 272 | 329[a] | 432 | 336 | 377[a] |
| 173451 | WF1S | 2/21/57 | 2/ 5/57 | 1 | 43.8 | 42.0 | 42.8 | 14.3 | 12.9 | 13.6 | 134 | 89 | 112 | 416 | 304 | 347[a] | 400 | 320 | 354[a] |
| Current Mill Average. | | | | | | | 42.5 | | | 13.3 | | | 113 | | | 332 | | | 366 |
| Cumulative Mill Average. | | | | | | | 42.9 | | | 13.0 | | | 112 | | | 320 | | | 356 |
| Mill Factor, % | | | | | | | 99.1 | | | 102.3 | | | 100.9 | | | 103.8 | | | 102.8 |
| Mill Index, % | | | | | | | 98.8 | | | 104.7 | | | 103.7 | | | 97.6 | | | 97.9 |

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

SUMMARY OF INSTITUTE DATA--FEBRUARY 1 THROUGH FEBRUARY 28, 1957 (continued)

TABLE XV

MILL M -- 42-LB. LINERBOARD

| File No. | Finish | Date Recd. | Date Made | Mch. No. | Basis Weight, lb. | | | Caliper, points | | | Bursting Strength, p.s.i. gage | | | Elmendorf Tear, g./sheet | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | In | | | Across | | |
| | | | | | Max. | Min. | Av. | Max. | Min. | Av. | Max. | Min. | Av. | Max. | Min. | Av. | Max. | Min. | Av. |
| 173366 | W.F. | 2/ 8/57 | 1/25/57 | - | 44.0 | 42.0 | 43.1 | 13.2 | 12.0 | 13.0 | 122 | 75 | 102 | 400 | 304 | 345[a] | 400 | 352 | 385[a] |
| 173367 | W.F. | 2/ 8/57 | 1/25/57 | - | 44.2 | 41.0 | 42.8 | 13.9 | 12.2 | 12.9 | 128 | 92 | 109 | 392 | 312 | 349[a] | 432 | 336 | 379[a] |
| 173368 | W.F. | 2/ 8/57 | 1/28/57 | - | 44.8 | 42.4 | 43.4 | 13.7 | 12.8 | 13.2 | 131 | 88 | 113 | 408 | 296 | 345[a] | 432 | 336 | 380[a] |
| 173456 | W.F. | 2/21/57 | 2/15/57 | - | 47.0 | 44.0 | 45.5 | 14.0 | 12.9 | 13.6 | 138 | 90 | 115 | 480 | 312 | 367[a] | 472 | 368 | 412[a] |
| 173457 | W.F. | 2/21/57 | 2/15/57 | - | 46.0 | 44.0 | 45.0 | 14.0 | 12.8 | 13.2 | 134 | 95 | 116 | 416 | 328 | 365[a] | 464 | 384 | 414[a] |
| Current Mill Average: | | | | | | | 43.9 | | | 13.2 | | | 111 | | | 354 | | | 394 |
| Cumulative Mill Average: | | | | | | | 42.9 | | | 12.7 | | | 108 | | | 347 | | | 377 |
| Mill Factor, % | | | | | | | 102.3 | | | 103.9 | | | 102.8 | | | 102.0 | | | 104.5 |
| Mill Index, % | | | | | | | 102.1 | | | 103.9 | | | 101.8 | | | 104.1 | | | 105.3 |

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

SUMMARY OF INSTITUTE DATA--FEBRUARY 1 THROUGH FEBRUARY 28, 1957 (continued)

TABLE XVI

MILL N -- 42-LB. LINERBOARD

| File No. | Finish | Date Recd. | Date Made | Mch. No. | Basis Weight, lb. | | | Caliper, points | | | Bursting Strength, p.s.i. gage | | | Elmendorf Tear, g./sheet | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | In | | | Across | | |
| | | | | | Max. | Min. | Av. | Max. | Min. | Av. | Max. | Min. | Av. | Max. | Min. | Av. | Max. | Min. | Av. |
| 173357 | W.F. | 2/ 5/57 | 1/28/57 | 2 | 43.8 | 41.6 | 42.6 | 12.2 | 11.0 | 11.7 | 124 | 80 | 108 | 400 | 296 | 337[a] | 384 | 320 | 355[a] |
| 173412 | W.F. | 2/18/57 | 1/31/57 | 2 | 44.0 | 42.0 | 42.7 | 12.6 | 11.2 | 11.7 | 136 | 84 | 107 | 440 | 296 | 334[a] | 392 | 312 | 345[a] |
| 173435 | W.F. | 2/19/57 | 2/ 7/57 | 2 | 44.0 | 42.0 | 43.2 | 13.3 | 12.4 | 12.9 | 136 | 74 | 108 | 384 | 296 | 339[a] | 448 | 352 | 387[a] |
| 173436 | W.F. | 2/19/57 | 2/ 9/57 | 2 | 44.2 | 41.2 | 43.2 | 13.4 | 12.3 | 13.0 | 139 | 94 | 113 | 400 | 272 | 339[a] | 416 | 336 | 379[a] |
| 173461 | W.F. | 2/22/57 | 2/11/57 | 2 | 44.0 | 42.0 | 42.4 | 13.1 | 11.6 | 12.1 | 139 | 92 | 118 | 400 | 304 | 348 | 400 | 336 | 371[a] |
| 173462 | W.F. | 2/22/57 | 2/12/57 | 2 | 44.0 | 41.6 | 42.4 | 13.1 | 11.5 | 12.1 | 144 | 99 | 118 | 384 | 288 | 326 | 432 | 336 | 382[a] |
| 173463 | W.F. | 2/22/57 | 2/12/57 | 1 | 43.8 | 41.8 | 42.6 | 13.0 | 12.1 | 12.6 | 140 | 99 | 116 | 384 | 272 | 336[a] | 400 | 344 | 369[a] |
| 173464 | W.F. | 2/22/57 | 2/14/57 | 1 | 43.8 | 40.8 | 42.3 | 13.2 | 12.0 | 12.8 | 146 | 90 | 115 | 400 | 288 | 341 | 416 | 336 | 374[a] |
| Current Mill Average: | | | | | | | 42.7 | | | 12.4 | | | 113 | | | 338 | | | 370 |
| Cumulative Mill Average: | | | | | | | 43.0 | | | 12.5 | | | 111 | | | 328 | | | 371 |
| Mill Factor, % | | | | | | | 99.3 | | | 99.2 | | | 101.8 | | | 103.0 | | | 99.7 |
| Mill Index, % | | | | | | | 99.3 | | | 97.6 | | | 103.7 | | | 99.4 | | | 98.9 |

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

SUMMARY OF INSTITUTE DATA--FEBRUARY 1 THROUGH FEBRUARY 28, 1957 (continued)

TABLE XVII

MILL O -- 42-LB. LINERBOARD

| File No. | Finish | Date Recd. | Date Made | Mch. No. | Basis Weight, lb. | | | Caliper, points | | | Bursting Strength, p.s.i. gage | | | Elmendorf Tear, g./sheet | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | In | | | Across | | |
| | | | | | Max. | Min. | Av. | Max. | Min. | Av. | Max. | Min. | Av. | Max. | Min. | Av. | Max. | Min. | Av. |
| 173338 | WF1S | 2/ 1/57 | 1/24/57 | 1 | 43.8 | 40.2 | 41.8 | 13.8 | 11.1 | 12.2 | 128 | 71 | 101 | 336 | 216 | 269 | 352 | 296 | 329[a] |
| 173465 | WF1S | 2/22/57 | 2/12/57 | 1 | 44.6 | 43.0 | 43.6 | 14.5 | 12.7 | 13.6 | 121 | 87 | 106 | 360 | 256 | 299[a] | 376 | 320 | 347[a] |
| 173466 | WF1S | 2/22/57 | 2/14/57 | 1 | 42.0 | 40.0 | 41.1 | 13.4 | 11.8 | 12.5 | 140 | 90 | 109 | 304 | 240 | 273 | 384 | 296 | 332[a] |
| Current Mill Average: | | | | | | | 42.2 | | | 12.7 | | | 106 | | | 280 | | | 336 |
| Cumulative Mill Average: | | | | | | | 43.1 | | | 12.9 | | | 108 | | | 322 | | | 361 |
| Mill Factor, % | | | | | | | 97.9 | | | 98.4 | | | 98.1 | | | 87.0 | | | 93.1 |
| Mill Index, % | | | | | | | 98.1 | | | 100.0 | | | 97.2 | | | 82.4 | | | 89.8 |

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

SUMMARY OF INSTITUTE DATA--FEBRUARY 1 THROUGH FEBRUARY 28, 1957 (continued)

TABLE XVIII

MILL P -- 42-LB. LINERBOARD

| File No | Finish | Date Recd. | Date Made | Mch. No. | Basis Weight, lb. | | | Caliper, points | | | Bursting Strength, p.s.i. gage | | | Elmendorf Tear, g./sheet | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | In | | | Across | | |
| | | | | | Max. | Min. | Av. | Max. | Min. | Av. | Max. | Min. | Av. | Max. | Min. | Av. | Max. | Min. | Av. |
| 173350 | W | 2/ 4/57 | 1/ 4/57 | 4 | 43.8 | 41.0 | 42.5 | 13.1 | 12.5 | 12.9 | 130 | 96 | 110 | 424 | 320 | 366 | 472 | 360 | 390[a] |
| 173351 | W. | 2/ 4/57 | 1/21/57 | 2 | 43.8 | 40.0 | 42.2 | 13.7 | 12.0 | 12.9 | 134 | 75 | 105 | 400 | 336 | 374[a] | 416 | 320 | 357[a] |
| 173410 | W. | 2/18/57 | 1/31/57 | 4 | 44.0 | 40.2 | 42.9 | 13.3 | 12.5 | 12.8 | 138 | 89 | 112 | 432 | 336 | 381[a] | 416 | 328 | 386[a] |
| 173411 | W. | 2/18/57 | 2/ 6/57 | 4 | 43.8 | 42.0 | 43.2 | 13.7 | 12.9 | 13.2 | 130 | 91 | 112 | 400 | 336 | 365[a] | 432 | 336 | 379[a] |
| Current Mill Average: | | | | | | | 42.7 | | | 12.9 | | | 110 | | | 372 | | | 378 |
| Cumulative Mill Average. | | | | | | | 43.0 | | | 13.1 | | | 109 | | | 355 | | | 380 |
| Mill Factor, % | | | | | | | 99.3 | | | 98.5 | | | 100.9 | | | 104.8 | | | 99.5 |
| Mill Index, % | | | | | | | 99.3 | | | 101.6 | | | 100.9 | | | 109.4 | | | 101.1 |

TABLE XIX

MILL Q -- 42-LB. LINERBOARD

No samples submitted

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

SUMMARY OF INSTITUTE DATA--FEBRUARY 1 THROUGH FEBRUARY 28, 1957 (continued)

TABLE XX

MILL S -- 42-LB. LINERBOARD

| File No. | Finish | Date Recd. | Date Made | Mch. No. | Basis Weight, lb. | | | Caliper, points | | | Bursting Strength, p.s.i. gage | | | Elmendorf Tear, g./sheet | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | In | | | Across | | |
| | | | | | Max. | Min. | Av. | Max. | Min. | Av. | Max. | Min. | Av. | Max. | Min. | Av. | Max. | Min. | Av. |
| 173361 | W.F. | 2/ 6/57 | 1/30/57 | - | 45.4 | 43.6 | 44.8 | 13.5 | 12.7 | 13.1 | 142 | 102 | 119 | 384 | 304 | 340[a] | 432 | 360 | 391[a] |
| 173362 | W F. | 2/ 6/57 | 1/31/57 | - | 43.6 | 42.0 | 42.6 | 13.3 | 12.2 | 12.8 | 125 | 97 | 110 | 440 | 312 | 372[a] | 424 | 320 | 366[a] |
| 173363 | W.F. | 2/ 6/57 | 2/ 1/57 | - | 44.2 | 43.8 | 44.1 | 13.1 | 12.2 | 12.8 | 122 | 88 | 110 | 392 | 312 | 353[a] | 456 | 344 | 395[a] |
| 173389 | W.F. | 2/14/57 | 2/ 6/57 | - | 44.0 | 43.2 | 43.5 | 13.3 | 12.7 | 13.1 | 143 | 91 | 114 | 432 | 344 | 382[a] | 424 | 344 | 380[a] |
| 173390 | W.F. | 2/14/57 | 2/ 7/57 | - | 43.8 | 41.6 | 42.8 | 14.0 | 12.3 | 13.2 | 137 | 86 | 110 | 456 | 344 | 390[a] | 432 | 320 | 371[a] |
| 173391 | W.F. | 2/14/57 | 2/ 8/57 | - | 41.8 | 40.0 | 40.6 | 13.8 | 12.8 | 13.2 | 123 | 78 | 100 | 384 | 272 | 331[a] | 400 | 288 | 351[a] |
| 173453 | W.F. | 2/21/57 | 2/13/57 | - | 45.6 | 43.0 | 44.2 | 13.7 | 11.8 | 12.9 | 125 | 96 | 109 | 448 | 328 | 377[a] | 400 | 352 | 377[a] |
| 173454 | W.F. | 2/21/57 | 2/14/57 | - | 45.6 | 43.8 | 44.2 | 13.8 | 12.2 | 13.0 | 126 | 102 | 116 | 384 | 296 | 345[a] | 432 | 336 | 388[a] |
| 173455 | W.F. | 2/21/57 | 2/15/57 | - | 43.8 | 43.0 | 43.4 | 13.5 | 12.8 | 13.1 | 127 | 77 | 111 | 416 | 304 | 361[a] | 400 | 352 | 373[a] |
| Current Mill Average: | | | | | | | 43.3 | | | 13.0 | | | 111 | | | 361 | | | 377 |
| Cumulative Mill Average: | | | | | | | 43.5 | | | 12.7 | | | 110 | | | 354 | | | 379 |
| Mill Factor, % | | | | | | | 99.5 | | | 102.4 | | | 100.9 | | | 102.0 | | | 99.5 |
| Mill Index, % | | | | | | | 100.7 | | | 102.4 | | | 101.8 | | | 106.2 | | | 100.8 |

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

SUMMARY OF INSTITUTE DATA--FEBRUARY 1 THROUGH FEBRUARY 28, 1957 (continued)

TABLE XXI

MILL R -- MISCELLANEOUS

| File No. | Finish | Date Recd. | Date Made | Mch. No. | Basis Weight, lb. Max. | Min. | Av. | Caliper, points Max. | Min. | Av. | Bursting Strength, p.s.i. gage Max. | Min. | Av. | Elmendorf Tear, g./sheet In Max. | Min. | Av. | Across Max. | Min. | Av. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **47-lb. Drum Linerboard** | | | | | | | | | | | | | | | | | | | |
| 173337 | WF2S | 2/ 1/57 | 1/25/57 | 2 | 50.0 | 46.0 | 47.8 | 14.8 | 13.6 | 14.2 | 103 | 75 | 90 | 448 | 320 | 379[a] | 464 | 320 | 383[a] |
| 173417 | WF2S | 2/18/57 | 2/11/57 | 2 | 48.4 | 45.8 | 47.4 | 14.6 | 13.2 | 13.9 | 107 | 75 | 90 | 464 | 368 | 409[a] | 448 | 312 | 389[a] |
| 173481 | WF2S | 2/25/57 | 2/19/57 | 2 | 48.0 | 46.0 | 47.2 | 15.1 | 13.2 | 14.4 | 107 | 73 | 91 | 464 | 304 | 370[a] | 432 | 320 | 381[a] |
| Current Mill Average: | | | | | | | 47.5 | | | 14.2 | | | 90 | | | 386 | | | 384 |
| Cumulative Mill Average: | | | | | | | 47.4 | | | 14.2 | | | 97 | | | 389 | | | 388 |
| Mill Factor, % | | | | | | | 100.2 | | | 100.0 | | | 92.8 | | | 99.2 | | | 99.0 |
| **38-lb. Linerboard** | | | | | | | | | | | | | | | | | | | |
| 173336 | WF1S | 2/ 1/57 | 1/23/57 | 2 | 40.4 | 39.2 | 39.9 | 13.2 | 12.2 | 12.6 | 115 | 72 | 99 | 344 | 248 | 279[a] | 344 | 272 | 303[a] |

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

As a supplementary part of the Continuous Baseline Study, comparisons of the mill test results with those obtained at The Institute of Paper Chemistry on corresponding samples have been included in this report. As may be noted in Table XXII, the atmospheric conditions used prior to and during the testing period were relatively uniform for the mills which reported this information. However, the conditioning periods varied considerably.

TABLE XXII

| | Preconditioning | | | Conditioning | | |
|---|---|---|---|---|---|---|
| Code | R.H., % | Temp., °F. | Time, hr. | R.H., % | Temp., °F. | Time, hr. |
| A | | None | | 50 | 73 | 0.5 |
| B | | No samples submitted. | | | | |
| C | | None | | 50 | 73 | 24 |
| D | | None | | 50-52 | 71-72 | 48 |
| E | | None | | 40-70 | 75-82 | -- |
| F | 50 | 73 | 24 | | None | -- |
| G | | None | | 49-50 | 66-78 | -- |
| H | 48-85 | 62-80 | 0.5 | 50 | 70 | 24-48 |
| I | | None | | 50 | 73 | 24 |
| J | 50 | 73 | 24 | | None | |
| K | 50 | 72 | 24 | | None | |
| L | | None | | 48-68 | 81-83 | -- |
| M | | None | | 50 | 73 | 24-72 |
| N | 50 | 73 | 24 | 50 | 73 | 24 |
| O | 60-80 | 71-72 | 16-72 | 59-84 | 72-74 | 2 |
| P | | None | | 55-58 | 73-74 | -- |
| Q | | No samples submitted. | | | | |
| S | 34-35 | 77-78 | 8 | 49-51 | 71-72 | 16 |

A summary of the Institute and mill test results for the current period is shown in Table XXIII, and a comparison of differences between Institute and mill test results is given in Table XXIV for the current period and the two previous periods. The comparisons are given in Tables XXV to

to XLII, for the 42-lb. liner samples. A comparison of the special drum and miscellaneous stock is given in Table XLIII. In all the comparisons given in Tables XXV to XLIII, the Institute's test values have been used as the reference line.

A comparison of the test data in Tables XXIII and XXIV reveals the level of agreement between mill and Institute data for basis weight, caliper, bursting strength, and Elmendorf tear. Table XXIII shows the average difference between Institute and mill test results for all sample lots submitted by each mill for the current period. In addition, the maximum difference encountered in comparing the Institute and mill test results for a given sample lot is shown. In Table XXIV, the average differences shown for each test in Table XXIII have been calculated on a percentage basis for each mill. In addition, for purposes of comparison, the average percentage differences for the preceding two periods are shown.

It may be noted in Table XXIV that the maximum variation between the average basis weight results of the Institute and those of a given mill on corresponding samples is two per cent for the current period. By comparison, the maximum percentage variation noted for the previous two periods was three per cent. Further, it may be noted that the average basis weight results for Mills C, J, K, N, and S are higher than those for the Institute, the average result for Mill H is the same, and the average results for the other mills are lower. None of the variations for the current period appear to be excessive.

The maximum variation in caliper for the current period is six per cent. This variation is slightly lower than the maximum variation for the previous two periods--namely, seven per cent. Compared with the Institute's test results, the test results for all mills except H are lower. The result for Mill H is the same as that for the Institute. Only the variation for Mill O appears to be excessive.

It may be noted in Table XXIV that the bursting strength results exhibited a maximum variation of six per cent for the current period. The average results for Mills A, C, F, G, I, K, O, and P are higher than those for the Institute, the average result for Mill S is the same, and the results for the other mills are lower. Only the variation associated with the result for Mill I appeared to be excessive.

It may be seen in Tables XXIII and XXIV that the average machine direction tear results for Mills C, G, H, I, J, K, and O are higher than those for the Institute, whereas the results for the other mills are lower. The maximum variation for the current period is nine per cent. The variations which approach a magnitude of ten per cent may be excessive.

With regard to the cross-machine direction tear results, it may be noted that the average results for Mills A, C, D, F, H, H, I, J, K, L, and O are higher than those for the Institute, and the average results for the other mills are lower. The maximum variation for the current period is twenty-three per cent. The variations noted for Mills C, J, and O appear to be excessive.

## TABLE XXIII

### SUMMARY OF TEST RESULT COMPARISONS (AVERAGE MILL AND INSTITUTE RESULTS)

| No. of Samples Compared | Mills * A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | S |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 8 | 0 | 6 | 7 | 6 | 3 | 3 | 5 | 6 | 2 | 4 | 5 | 5 | 8 | 3 | 4 | 0 | 9 |
| **Basis Weight** | | | | | | | | | | | | | | | | | | |
| Institute | 42.7 | -- | 43.6 | 44.4 | 42.9 | 44.0 | 43.6 | 42.8 | 43.6 | 42.5 | 42.5 | 42.5 | 43.9 | 42.7 | 42.2 | 42.7 | -- | 43.3 |
| Mill | 42.5 | -- | 43.7 | 43.9 | 42.1 | 43.4 | 42.7 | 42.8 | 42.8 | 42.8 | 43.5 | 42.4 | 43.6 | 43.2 | 41.9 | 42.6 | -- | 43.4 |
| Av. Diff.** | -0.2 | -- | +0.1 | -0.5 | -0.8 | -0.6 | -0.9 | 0.0 | -0.8 | +0.3 | +1.0 | -0.1 | -0.3 | +0.5 | -0.3 | -0.1 | -- | +0.1 |
| Max. Diff.*** | -0.6 | -- | +0.4 | -0.8 | -1.5 | -0.6 | -1.1 | -0.6 | -1.0 | +0.5 | +1.2 | -0.8 | -0.7 | +1.1 | -0.7 | -0.6 | -- | +0.9 |
| **Caliper** | | | | | | | | | | | | | | | | | | |
| Institute | 12.2 | -- | 12.5 | 12.4 | 13.6 | 13.3 | 12.5 | 12.1 | 12.8 | 11.7 | 13.7 | 13.3 | 13.2 | 12.4 | 12.7 | 12.9 | -- | 13.0 |
| Mill | 11.8 | -- | 12.1 | 12.1 | 13.0 | 12.8 | 12.3 | 12.1 | 12.3 | 11.2 | 13.4 | 12.8 | 12.6 | 12.1 | 12.0 | 12.6 | -- | 12.6 |
| Av. Diff.** | -0.4 | -- | -0.4 | -0.3 | -0.6 | -0.5 | -0.2 | 0.0 | -0.5 | -0.5 | -0.3 | -0.5 | -0.6 | -0.3 | -0.7 | -0.3 | -- | -0.4 |
| Max. Diff.*** | -0.6 | -- | -0.7 | -0.4 | -1.1 | -0.8 | -0.6 | -0.4 | -0.7 | -0.6 | -0.4 | -0.6 | -0.7 | -0.5 | -1.0 | -0.4 | -- | -0.8 |
| **Bursting Strength** | | | | | | | | | | | | | | | | | | |
| Institute | 106 | -- | 109 | 111 | 114 | 105 | 107 | 111 | 108 | 111 | 100 | 113 | 111 | 113 | 106 | 110 | -- | 111 |
| Mill | 110 | -- | 113 | 108 | 109 | 109 | 108 | 109 | 114 | 105 | 102 | 110 | 106 | 112 | 109 | 112 | -- | 111 |
| Av. Diff.** | +4 | -- | +4 | -3 | -5 | +4 | +1 | -2 | +6 | -6 | +2 | -3 | -5 | -1 | +3 | +2 | -- | 0 |
| Max. Diff.*** | +8 | -- | +10 | -7 | -9 | +7 | +5 | -5 | +8 | -9 | +6 | -5 | -9 | -5 | +6 | +4 | -- | -6 |
| **Tearing Strength, In** | | | | | | | | | | | | | | | | | | |
| Institute | 344 | -- | 328 | 375 | 310 | 398 | 317 | 295 | 316 | 370 | 328 | 332 | 354 | 338 | 280 | 372 | -- | 361 |
| Mill | 340 | -- | 357 | 369 | 282 | 367 | 331 | 313 | 322 | 390 | 334 | 328 | 324 | 331 | 304 | 366 | -- | 340 |
| Av. Diff.** | -4 | -- | +29 | -6 | -28 | -31 | +14 | +18 | +6 | +20 | +6 | -4 | -30 | -7 | +24 | -6 | -- | -21 |
| Max. Diff.*** | -23 | -- | +40 | -34 | -59 | -51 | +25 | +31 | +42 | +28 | +30 | -61 | -47 | -35 | +47 | -32 | -- | -46 |
| **Tearing Strength, Across** | | | | | | | | | | | | | | | | | | |
| Institute | 355 | -- | 374 | 407 | 371 | 399 | 370 | 341 | 368 | 407 | 350 | 366 | 394 | 370 | 336 | 378 | -- | 377 |
| Mill | 385 | -- | 423 | 419 | 368 | 414 | 393 | 360 | 387 | 500 | 377 | 375 | 383 | 369 | 387 | 377 | -- | 372 |
| Av. Diff.** | +30 | -- | +49 | +12 | -3 | +15 | +23 | +19 | +19 | +93 | +27 | +9 | -11 | -1 | +51 | -1 | -- | -5 |
| Max. Diff.*** | +60 | -- | +64 | +31 | -16 | +33 | +28 | +26 | +37 | +107 | +49 | +38 | -32 | +34 | +64 | -16 | -- | -25 |

* Comparison based on averages involved only those samples on which mill test data were submitted.
** Average difference is the difference between the Institute mill average and the mill average based on mill test data.
*** Maximum difference encountered in comparing the Institute average and the mill average for any sample submitted by that particular mill.

TABLE XXIV

COMPARISON OF INSTITUTE-MILL DIFFERENCES BY PERIODS
Average Difference, per cent

| Mill | Period | Basis Weight | Caliper | Bursting Strength | Tearing Strength, In | Across |
|---|---|---|---|---|---|---|
| A | Current | -0.5 | -3 | +4 | -1 | +8 |
| | 115th | -0.9 | -3 | -3 | -6 | +13 |
| | 114th | -0.9 | -2 | -3 | +6 | +14 |
| B | Current | -- | -- | -- | -- | -- |
| | 115th | +0.2 | -2 | -7 | -5 | +0.6 |
| | 114th | -0.7 | -2 | -3 | -12 | -5 |
| C | Current | +0.2 | -3 | +4 | +9 | +13 |
| | 115th | -1 | -3 | +6 | +2 | +9 |
| | 114th | +0.9 | -3 | +5 | -2 | +5 |
| D | Current | -1 | -2 | -3 | -2 | +3 |
| | 115th | -1 | -3 | 0 | -7 | +0.7 |
| | 114th | -2 | -3 | +3 | -5 | +2 |
| E | Current | -2 | -4 | -4 | -9 | -0.8 |
| | 115th | -1 | -4 | -8 | -8 | -1 |
| | 114th | -2 | -4 | -3 | -5 | -1 |
| F | Current | -1 | -4 | +4 | -8 | +4 |
| | 115th | -2 | -3 | +3 | -6 | +3 |
| | 114th | -0.2 | -2 | 0 | -4 | +5 |
| G | Current | -2 | -2 | +0.9 | +4 | +6 |
| | 115th | -0.7 | 0 | 0 | +6 | +7 |
| | 114th | -1 | -2 | -3 | +5 | +5 |
| H | Current | 0 | 0 | -2 | +6 | +6 |
| | 115th | +0.2 | 0 | +2 | +4 | +3 |
| | 114th | 0 | -2 | +2 | -0.6 | +1 |
| I | Current | -2 | -4 | +6 | +2 | +5 |
| | 115th | -2 | -5 | +5 | +0.3 | +5 |
| | 114th | -1 | -2 | +0.9 | +7 | +6 |
| J | Current | +0.7 | -4 | -5 | +5 | +23 |
| | 115th | +0.2 | -2 | 0 | +2 | +17 |
| | 114th | 0 | -2 | +1 | -7 | +7 |
| K | Current | +2 | -2 | +2 | +2 | +8 |
| | 115th | +3 | -3 | -6 | +4 | +8 |
| | 114th | -- | -- | -- | -- | -- |
| L | Current | -0.2 | -4 | -3 | -1 | +2 |
| | 115th | -2 | -5 | -4 | -5 | -2 |
| | 114th | -2 | -7 | -4 | -8 | -4 |
| M | Current | -0.7 | -5 | -5 | -8 | -3 |
| | 115th | 0 | -4 | -5 | -1 | +1 |
| | 114th | +0.7 | -4 | -3 | +2 | +6 |
| N | Current | +1 | -2 | -0.9 | -2 | -0.3 |
| | 115th | +0.5 | -3 | -0.9 | -9 | -2 |
| | 114th | +0.9 | -2 | -0.9 | -12 | -2 |
| O | Current | -0.7 | -6 | +3 | +9 | +15 |
| | 115th | +2 | -5 | -3 | +4 | +13 |
| | 114th | -2 | -4 | -4 | +22 | +16 |
| P | Current | -0.2 | -2 | +2 | -2 | -0.3 |
| | 115th | -1 | -4 | 0 | -2 | -3 |
| | 114th | -0.7 | -4 | +3 | +5 | +3 |
| Q | Current | -- | -- | -- | -- | -- |
| | 115th | --- | -- | -- | -- | -- |
| | 114th | -2 | -4 | -0.9 | -18 | -4 |
| S | Current | +0.2 | -3 | 0 | -6 | -1 |
| | 115th | -0.2 | -3 | -2 | -9 | -5 |
| | 114th | -0.9 | -3 | +0.9 | -5 | -3 |

## COMPARISON OF INSTITUTE AND MILL DATA--FEBRUARY 1 THROUGH FEBRUARY 28, 1957

### TABLE XXV

### MILL A -- 42-LB. LINERBOARD

| File No. | Finish | Date Made | Mch. No. | Basis Weight, lb. | | | Caliper, points | | | Bursting Strength, p.s.i. gage | | | Elmendorf Tear, g./sheet | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | In | | | Across | | |
| | | | | IPC | Mill | Diff. | IPC | Mill | Diff. | IPC | Mill | Diff. | IPC | Mill | Diff. | IPC | Mill | Diff. |
| 173352 | W.F. | 1/25/57 | - | 42.2 | 42.6 | +0.4 | 12.3 | 12.0 | -0.3 | 106 | 106 | 0 | 385[a] | 371 | -14 | 375[a] | 412 | +37 |
| 173353 | W.F. | 1/27/57 | - | 43.2 | 43.3 | +0.1 | 11.8 | 11.7 | -0.1 | 115 | 113 | - 2 | 366[a] | 363 | - 3 | 394[a] | 413 | +19 |
| 173387 | W.F. | 2/ 3/57 | - | 43.8 | 43.4 | -0.4 | 12.0 | 11.6 | -0.4 | 114 | 121 | + 7 | 355[a] | 350 | - 5 | 392[a] | 409 | +17 |
| 173388 | W.F. | 2/ 3/57 | - | 42.3 | 42.0 | -0.3 | 12.0 | 11.8 | -0.2 | 108 | 111 | + 3 | 354[a] | 333 | -21 | 373[a] | 391 | +18 |
| 173415 | W.F. | 2/11/57 | - | 43.0 | 42.4 | -0.6 | 12.5 | 11.9 | -0.6 | 100 | 108 | + 8 | 347[a] | 324 | -23 | 327[a] | 349 | +22 |
| 173416 | W.F. | 2/11/57 | - | 42.8 | 42.3 | -0.5 | 12.5 | 12.0 | -0.5 | 102 | 110 | + 8 | 325[a] | 337 | +12 | 339[a] | 372 | +33 |
| 173479 | W.F. | 2/18/57 | - | 42.3 | 41.7 | -0.6 | 12.1 | 11.8 | -0.3 | 103 | 108 | + 5 | 300[a] | 312 | +12 | 319[a] | 357 | +38 |
| 173480 | W.F. | 2/18/57 | - | 42.0 | 42.2 | +0.2 | 12.3 | 11.9 | -0.4 | 102 | 106 | + 4 | 321[a] | 333 | +12 | 319[a] | 379 | +60 |
| Current Mill Average: | | | | 42.7 | 42.5 | -0.2 | 12.2 | 11.8 | -0.4 | 106 | 110 | + 4 | 344 | 340 | - 4 | 355 | 385 | +30 |

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

## COMPARISON OF INSTITUTE AND MILL DATA--FEBRUARY 1 THROUGH FEBRUARY 28, 1957 (continued)

### TABLE XXVI

### MILL B -- 42-LB. LINERBOARD

| File No. | Finish | Date Made | Mch. No. | Basis Weight, lb. | | | Caliper, points | | | Bursting Strength, p.s.i. gage | | | Elmendorf Tear, g./sheet | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | In | | | Across | | |
| | | | | IPC | Mill | Diff. | IPC | Mill | Diff. | IPC | Mill | Diff. | IPC | Mill | Diff. | IPC | Mill | Diff. |
| No Samples Submitted | | | | | | | | | | | | | | | | | | |

### TABLE XXVII

### MILL C -- 42-LB. LINERBOARD

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 173331 | W.F. | 1/22/57 | 2 | 43.9 | 43.8 | -0.1 | 12.9 | 12.2 | -0.7 | 110 | 120 | +10 | 325 | 359 | +34 | 378[a] | 422 | +44 |
| 173332 | W.F. | 1/22/57 | 2 | 43.5 | 43.9 | +0.4 | 12.6 | 12.2 | -0.4 | 108 | 113 | + 5 | 349 | 377 | +28 | 383[a] | 443 | +60 |
| 173358 | W.F. | 1/31/57 | 2 | 43.5 | 43.4 | -0.1 | 12.2 | 12.0 | -0.2 | 111 | 110 | - 1 | 313[a] | 353 | +40 | 366[a] | 421 | +55 |
| 173359 | W.F. | 1/31/57 | 2 | 43.7 | 43.7 | 0.0 | 12.5 | 12.1 | -0.4 | 107 | 109 | + 2 | 323 | 355 | +32 | 356[a] | 420 | +64 |
| 173372 | W.F. | 2/ 3/57 | 2 | 43.5 | 43.5 | 0.0 | 12.2 | 12.0 | -0.2 | 113 | 114 | + 1 | 319[a] | 331 | +12 | 364[a] | 401 | +37 |
| 173373 | W.F. | 2/ 3/57 | 2 | 43.7 | 43.9 | +0.2 | 12.6 | 12.2 | -0.4 | 106 | 109 | + 3 | 341[a] | 370 | +29 | 397[a] | 433 | +36 |
| Current Mill Average: | | | | 43.6 | 43.7 | +0.1 | 12.5 | 12.1 | -0.4 | 109 | 113 | + 4 | 328 | 357 | +29 | 374 | 423 | +49 |

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

COMPARISON OF INSTITUTE AND MILL DATA--FEBRUARY 1 THROUGH FEBRUARY 28, 1957 (continued)

TABLE XXVIII

MILL D -- 42-LB. LINERBOARD

| File No. | Finish | Date Made | Mch. No. | Basis Weight, lo. | | | Caliper, points | | | Bursting Strength, p.s.i. gage | | | Elmendorf Tear, g./sheet | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | In | | | Across | | |
| | | | | IPC | Mill | Diff. | IPC | Mill | Diff. | IPC | Mill | Diff. | IPC | Mill | Diff. | IPC | Mill | Diff. |
| 173376 | M.B. | 1/19/57 | - | 44.5 | 44.1 | -0.4 | 12.5 | 12.2 | -0.3 | 111 | 108 | - 3 | 371 | 368 | - 3 | 401[a] | 412 | +11 |
| 173377 | M.B. | 1/15/57 | - | 42.9 | 42.1 | -0.8 | 12.1 | 11.7 | -0.4 | 105 | 106 | + 1 | 359[a] | 340 | -19 | 400[a] | 379 | -21 |
| 173378 | W.B. | 1/20/57 | - | 44.5 | 44.0 | -0.5 | 12.8 | 12.5 | -0.3 | 111 | 106 | - 5 | 402[a] | 395 | - 7 | 415[a] | 432 | +17 |
| 173379 | M.B. | 1/22/57 | - | 45.1 | 44.5 | -0.6 | 12.5 | 12.3 | -0.2 | 113 | 106 | - 7 | 377 | 376 | - 1 | 415[a] | 421 | + 6 |
| 173380 | M.B. | 1/26/57 | - | 45.4 | 44.9 | -0.5 | 12.3 | 12.0 | -0.3 | 115 | 109 | - 6 | 371 | 385 | +14 | 417[a] | 441 | +24 |
| 173437 | M.B | 1/28/57 | - | 44.2 | 44.4 | +0.2 | 12.2 | 11.9 | -0.3 | 110 | 108 | - 2 | 365[a] | 372 | + 7 | 395[a] | 411 | +16 |
| 173438 | M.B. | 1/31/57 | - | 44.1 | 43.5 | -0.6 | 12.2 | 12.0 | -0.2 | 112 | 110 | - 2 | 378[a] | 344 | -34 | 405[a] | 436 | +31 |
| Current Mill Average | | | | 44.4 | 43.9 | -0.5 | 12.4 | 12.1 | -0.3 | 111 | 108 | - 3 | 375 | 369 | - 6 | 407 | 419 | +12 |

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note All "current mill average" data are calculated from the totals of the individual readings.

COMPARISON OF INSTITUTE AND MILL DATA--FEBRUARY 1 THROUGH FEBRUARY 28, 1957 (continued)

TABLE XXIX

MILL E -- 42-LB. LINERBOARD

| File No. | Finish | Date Made | Mch. No. | Basis Weight, lb. | | | Caliper, points | | | Bursting Strength, p.s.i. gage | | | Elmendorf Tear, g./sheet | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | In | | | Across | | |
| | | | | IPC | Mill | Diff. | IPC | Mill | Diff. | IPC | Mill | Diff. | IPC | Mill | Diff. | IPC | Mill | Diff. |
| 173341 | W.F. | 1/ 7/57 | 1 | 43.5 | 42.0 | -1.5 | 13.9 | 13.2 | -0.7 | 121 | 117 | - 4 | 315[a] | 279 | -36 | 379[a] | 380 | + 1 |
| 173342 | W.F. | 1/11/57 | 1 | 43.4 | 42.7 | -0.7 | 13.5 | 12.9 | -0.6 | 119 | 110 | - 9 | 319 | 305 | -14 | 375[a] | 390 | +15 |
| 173343 | W.F. | 1/15/57 | 1 | 42.8 | 42.0 | -0.8 | 14.0 | 12.9 | -1.1 | 110 | 103 | - 7 | 299 | 293 | - 6 | 366[a] | 361 | - 5 |
| 173344 | W.F. | 1/19/57 | 1 | 41.9 | 41.6 | -0.3 | 13.3 | 13.0 | -0.3 | 112 | 107 | - 5 | 288[a] | 265 | -23 | 347[a] | 347 | 0 |
| 173385 | W.F. | 1/25/57 | 1 | 43.6 | 42.6 | -1.0 | 13.6 | 13.0 | -0.6 | 115 | 109 | - 6 | 336[a] | 277 | -59 | 381[a] | 365 | -16 |
| 173386 | W.F. | 1/30/57 | 1 | 42.3 | 42.0 | -0.3 | 13.4 | 13.0 | -0.4 | 109 | 108 | - 1 | 300[a] | 271 | -29 | 377[a] | 363 | -14 |
| Current Mill Average: | | | | 42.9 | 42.1 | -0.8 | 13.6 | 13.0 | -0.6 | 114 | 109 | - 5 | 310 | 282 | -28 | 371 | 368 | - 3 |

TABLE XXX

MILL F -- 42-LB. LINERBOARD

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 173364 | S.F. | 1/28/57 | 7 | 43.7 | 43.3 | -0.4 | 13.9 | 13.1 | -0.8 | 104 | 107 | + 3 | 393[a] | 365 | -28 | 402[a] | 415 | +13 |
| 173409 | S.F. | 2/ 8/57 | 7 | 43.4 | 42.8 | -0.6 | 13.1 | 12.9 | -0.2 | 103 | 105 | + 2 | 364[a] | 351 | -13 | 369[a] | 402 | +33 |
| 173452 | S.F. | 2/15/57 | 7 | 44.8 | 44.2 | -0.6 | 12.9 | 12.4 | -0.5 | 108 | 115 | + 7 | 436 | 385 | -51 | 427[a] | 425 | - 2 |
| Current Mill Average: | | | | 44.0 | 43.4 | -0.6 | 13.3 | 12.8 | -0.5 | 105 | 109 | + 4 | 398 | 367 | -31 | 399 | 414 | +15 |

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

COMPARISON OF INSTITUTE AND MILL DATA--FEBRUARY 1 THROUGH FEBRUARY 28, 1957 (continued)

TABLE XXXI

MILL G -- 42-LB. LINERBOARD

| File No. | Finish | Date Made | Mch. No. | Basis Weight, lb. | | | Caliper, points | | | Bursting Strength, p.s.i. gage | | | Elmendorf Tear, g./sheet | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | In | | | Across | | |
| | | | | IPC | Mill | Diff. | IPC | Mill | Diff. | IPC | Mill | Diff. | IPC | Mill | Diff. | IPC | Mill | Diff. |
| 173348 | WFlS | 1/25/57 | 1 | 43.8 | 42.7 | -1.1 | 12.6 | 12.0 | -0.6 | 110 | 106 | - 4 | 308 | 333 | +25 | 375[a] | 393 | +18 |
| 173349 | WFlS | 1/28/57 | 1 | 43.8 | 42.7 | -1.1 | 12.5 | 12.3 | -0.2 | 106 | 108 | + 2 | 313 | 327 | +14 | 364[a] | 392 | +28 |
| 173365 | WFlS | 1/31/57 | 1 | 43.3 | 42.7 | -0.6 | 12.3 | 12.5 | +0.2 | 104 | 109 | + 5 | 330[a] | 334 | + 4 | 372[a] | 395 | +23 |
| Current Mill Average: | | | | 43.6 | 42.7 | -0.9 | 12.5 | 12.3 | -0.2 | 107 | 108 | + 1 | 317 | 331 | +14 | 370 | 393 | +23 |

TABLE XXXII

MILL H -- 42-LB. LINERBOARD

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 173345 | W.F. | 1/28/57 | 1 | 43.0 | 42.4 | -0.6 | 11.8 | 11.4 | -0.4 | 114 | 111 | - 3 | 286[a] | 317 | +31 | 343[a] | 358 | +15 |
| 173346 | W.F. | 1/30/57 | 1 | 43.0 | 42.5 | -0.5 | 11.6 | 11.4 | -0.2 | 113 | 112 | - 1 | 290 | 306 | +16 | 338[a] | 355 | +17 |
| 173393 | W.F. | 2/ 7/57 | 1 | 42.8 | 43.1 | +0.3 | 11.4 | 11.6 | +0.2 | 116 | 111 | - 5 | 303 | 316 | +13 | 341[a] | 367 | +26 |
| 173482 | W.F. | 2/15/57 | 1 | 43.0 | 43.4 | +0.4 | 13.0 | 13.1 | +0.1 | 108 | 105 | - 3 | 294[a] | 316 | +22 | 342[a] | 365 | +23 |
| 173483 | W.F. | 2/18/57 | 1 | 42.0 | 42.4 | +0.4 | 12.9 | 12.9 | 0.0 | 104 | 106 | + 2 | 300 | 309 | + 9 | 341[a] | 355 | +14 |
| Current Mill Average. | | | | 42.8 | 42.8 | 0.0 | 12.1 | 12.1 | 0.0 | 111 | 109 | - 2 | 295 | 313 | +18 | 341 | 360 | +19 |

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note. All "current mill average" data are calculated from the totals of the individual readings.

## COMPARISON OF INSTITUTE AND MILL DATA--FEBRUARY 1 THROUGH FEBRUARY 28, 1957 (continued)

### TABLE XXXIII

### MILL I -- 42-LB. LINERBOARD

| File No. | Finish | Date Made | Mch. No. | Basis Weight, lb. | | | Caliper, points | | | Bursting Strength, p.s.i. gage | | | Elmendorf Tear, g./sheet | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | In | | | Across | | |
| | | | | IPC | Mill | Diff. | IPC | Mill | Diff. | IPC | Mill | Diff. | IPC | Mill | Diff. | IPC | Mill | Diff. |
| 173339 | W.F. | 1/27/57 | 2 | 44.0 | 43.5 | -0.5 | 12.9 | 12.3 | -0.6 | 106 | 114 | + 8 | 325[a] | 320 | - 5 | 372[a] | 395 | +23 |
| 173340 | W.F. | 1/27/57 | 2 | 44.0 | 43.5 | -0.5 | 12.8 | 12.2 | -0.6 | 108 | 114 | + 6 | 330[a] | 306 | -24 | 381[a] | 377 | - 4 |
| 173374 | W.F. | 2/ 3/57 | 2 | 43.4 | 42.4 | -1.0 | 12.4 | 12.0 | -0.4 | 112 | 114 | + 2 | 314[a] | 317 | + 3 | 365[a] | 385 | +20 |
| 173375 | W.F. | 2/ 5/57 | 1 | 44.0 | 43.0 | -1.0 | 12.9 | 12.3 | -0.6 | 110 | 114 | + 4 | 313[a] | 314 | + 1 | 365[a] | 378 | +13 |
| 173413 | W.F. | 2/10/57 | 1 | 43.1 | 42.2 | -0.9 | 13.0 | 12.8 | -0.2 | 106 | 114 | + 8 | 299 | 341 | +42 | 367[a] | 404 | +37 |
| 173414 | W.F. | 2/10/57 | 1 | 42.8 | 42.3 | -0.5 | 13.0 | 12.3 | -0.7 | 106 | 113 | + 7 | 315 | 336 | +21 | 360[a] | 385 | +25 |
| Current Mill Average: | | | | 43.6 | 42.8 | -0.8 | 12.8 | 12.3 | -0.5 | 108 | 114 | + 6 | 316 | 322 | + 6 | 368 | 387 | +19 |

### TABLE XXXIV

### MILL J -- 42-LB. LINERBOARD

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 173347 | WF1S | 1/26/57 | 1 | 42.1 | 42.6 | +0.5 | 11.9 | 11.3 | -0.6 | 108 | 105 | - 3 | 365[a] | 378 | +13 | 404[a] | 511 | +107 |
| 173360 | WF1S | 1/28/57 | 1 | 43.0 | 43.0 | 0.0 | 11.5 | 11.2 | -0.3 | 113 | 104 | - 9 | 375[a] | 403 | +28 | 409[a] | 490 | + 81 |
| Current Mill Average: | | | | 42.5 | 42.8 | +0.3 | 11.7 | 11.2 | -0.5 | 111 | 105 | - 6 | 370 | 390 | +20 | 407 | 500 | + 93 |

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

COMPARISON OF INSTITUTE AND MILL DATA--FEBRUARY 1 THROUGH FEBRUARY 28, 1957 (continued)

TABLE XXXV

MILL K -- 42-LB. LINERBOARD

| File No. | Finish | Date Made | Mch. No. | Basis Weight, lb. | | | Caliper, points | | | Bursting Strength, p.s.i. gage | | | Elmendorf Tear, g./sheet | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | In | | | Across | | |
| | | | | IPC | Mill | Diff. | IPC | Mill | Diff. | IPC | Mill | Diff. | IPC | Mill | Diff. | IPC | Mill | Diff. |
| 173335 | WF1S | 1/22/57 | 2 | 42.8 | 44.0 | +1.2 | 13.4 | 13.0 | -0.4 | 106 | 104 | - 2 | 294[a] | 316 | +22 | 338[a] | 387 | +49 |
| 173394 | WF1S | 2/ 4/57 | 2 | 43.6 | 44.7 | +1.1 | 13.9 | 13.5 | -0.4 | 105 | 106 | + 1 | 351[a] | 350 | - 1 | 355[a] | 378 | +23 |
| 173395 | WF1S | 2/ 7/57 | 2 | 43.2 | 44.0 | +0.8 | 13.8 | 13.4 | -0.4 | 94 | 98 | + 4 | 331[a] | 361 | +30 | 346[a] | 370 | +24 |
| 173439 | WF1S | 2/14/57 | 2 | 40.3 | 41.4 | +1.1 | 13.8 | 13.5 | -0.3 | 95 | 101 | + 6 | 335[a] | 309 | -26 | 362[a] | 372 | +10 |
| Current Mill Average: | | | | 42.5 | 43.5 | +1.0 | 13.7 | 13.4 | -0.3 | 100 | 102 | + 2 | 328 | 334 | + 6 | 350 | 377 | +27 |

TABLE XXXVI

MILL L -- 42-LB. LINERBOARD

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 173333 | WF1S | 1/23/57 | 1 | 42.1 | 42.6 | +0.5 | 13.0 | 12.8 | -0.2 | 110 | 108 | - 2 | 324[a] | 343 | +19 | 369[a] | 373 | + 4 |
| 173334 | WF1S | 1/23/57 | 1 | 42.1 | 42.8 | +0.7 | 13.1 | 12.8 | -0.3 | 112 | 108 | - 4 | 329[a] | 336 | + 7 | 357[a] | 368 | +11 |
| 173371 | WF1S | 1/28/57 | 1 | 43.3 | 42.9 | -0.4 | 13.7 | 13.1 | -0.6 | 113 | 108 | - 5 | 331[a] | 387 | +56 | 375[a] | 413 | +38 |
| 173450 | WF1S | 2/ 5/57 | 1 | 42.2 | 41.7 | -0.5 | 13.0 | 12.5 | -0.5 | 116 | 116 | 0 | 329[a] | 286 | -43 | 377[a] | 352 | -25 |
| 173451 | WF1S | 2/ 5/57 | 1 | 42.8 | 42.0 | -0.8 | 13.6 | 13.0 | -0.6 | 112 | 111 | - 1 | 347[a] | 286 | -61 | 354[a] | 367 | +13 |
| Current Mill Average: | | | | 42.5 | 42.4 | -0.1 | 13.3 | 12.8 | -0.5 | 113 | 110 | - 3 | 332 | 328 | - 4 | 366 | 375 | + 9 |

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

COMPARISON OF INSTITUTE AND MILL DATA--FEBRUARY 1 THROUGH FEBRUARY 28, 1957 (continued)

TABLE XXXVII

MILL H -- 42-LB. LINERBOARD

| File No. | Finish | Date Made | Mch. No. | Basis Weight, lb. | | | Caliper, points | | | Bursting Strength, p.s.i. gage | | | Elmendorf Tear, g./sheet | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | In | | | Across | | |
| | | | | IPC | Mill | Diff. | IPC | Mill | Diff. | IPC | Mill | Diff. | IPC | Mill | Diff. | IPC | Mill | Diff. |
| 173366 | W.F. | 1/25/57 | - | 43.1 | 42.5 | -0.6 | 13.0 | 12.3 | -0.7 | 102 | 101 | - 1 | 345[a] | 323 | -22 | 385[a] | 384 | - 1 |
| 173367 | W.F. | 1/25/57 | - | 42.8 | 42.7 | -0.1 | 12.9 | 12.2 | -0.7 | 109 | 102 | - 7 | 349[a] | 332 | -17 | 379[a] | 376 | - 3 |
| 173368 | W.F. | 1/28/57 | - | 43.4 | 43.4 | 0.0 | 13.2 | 12.8 | -0.4 | 113 | 104 | - 9 | 345[a] | 319 | -26 | 380[a] | 388 | + 8 |
| 173456 | W.F. | 2/15/57 | - | 45.5 | 45.2 | -0.3 | 13.6 | 12.9 | -0.7 | 115 | 112 | - 3 | 367[a] | 320 | -47 | 412[a] | 380 | -32 |
| 173457 | W.F. | 2/15/57 | - | 45.0 | 44.3 | -0.7 | 13.2 | 12.7 | -0.5 | 116 | 110 | - 6 | 365[a] | 325 | -40 | 414[a] | 387 | -27 |
| Current Mill Average: | | | | 43.9 | 43.6 | -0.3 | 13.2 | 12.6 | -0.6 | 111 | 106 | - 5 | 354 | 324 | -30 | 394 | 383 | -11 |

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

## COMPARISON OF INSTITUTE AND MILL DATA--FEBRUARY 1 THROUGH FEBRUARY 28, 1957 (continued)

### TABLE XXXVIII

### MILL N -- 42-LB. LINERBOARD

| File No. | Finish | Date Made | Mch. No. | Basis Weight, lb. | | | Caliper, points | | | Bursting Strength, p.s.i. gage | | | Elmendorf Tear, g./sheet | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | In | | | Across | | |
| | | | | IPC | Mill | Diff. | IPC | Mill | Diff. | IPC | Mill | Diff. | IPC | Mill | Diff. | IPC | Mill | Diff. |
| 173357 | W.F. | 1/28/57 | 2 | 42.6 | 43.3 | +0.7 | 11.7 | 11.4 | -0.3 | 108 | 106 | - 2 | 337[a] | 351 | +14 | 355[a] | 387 | +32 |
| 173412 | W.F. | 1/31/57 | 2 | 42.7 | 43.8 | +1.1 | 11.7 | 11.6 | -0.1 | 107 | 109 | + 2 | 334[a] | 346 | +12 | 345[a] | 379 | +34 |
| 173435 | W.F. | 2/ 7/57 | 2 | 43.2 | 43.9 | +0.7 | 12.9 | 12.6 | -0.3 | 108 | 111 | + 3 | 339[a] | 324 | -15 | 387[a] | 367 | -20 |
| 173436 | W.F. | 2/ 9/57 | 2 | 43.2 | 43.5 | +0.3 | 13.0 | 12.6 | -0.4 | 113 | 108 | - 5 | 339[a] | 321 | -18 | 379[a] | 369 | -10 |
| 173461 | W.F. | 2/11/57 | 2 | 42.4 | 42.6 | +0.2 | 12.1 | 11.9 | -0.2 | 118 | 116 | - 2 | 348 | 313 | -35 | 371[a] | 365 | - 6 |
| 173462 | W.F. | 2/12/57 | 2 | 42.4 | 42.6 | +0.2 | 12.1 | 11.9 | -0.2 | 118 | 114 | - 4 | 326 | 311 | -15 | 382[a] | 357 | -25 |
| 173463 | W.F. | 2/12/57 | 1 | 42.6 | 42.7 | +0.1 | 12.6 | 12.2 | -0.4 | 116 | 114 | - 2 | 336[a] | 346 | +10 | 369[a] | 365 | - 4 |
| 173464 | W.F. | 2/14/57 | 1 | 42.3 | 43.1 | +0.8 | 12.8 | 12.3 | -0.5 | 115 | 116 | + 1 | 341 | 337 | - 4 | 374[a] | 361 | -13 |
| Current Mill Average: | | | | 42.7 | 43.2 | +0.5 | 12.4 | 12.1 | -0.3 | 113 | 112 | - 1 | 338 | 331 | - 7 | 370 | 369 | - 1 |

### TABLE XXXIX

### MILL O -- 42-LB. LINERBOARD

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 173338 | WF1S | 1/24/57 | 1 | 41.8 | 41.1 | -0.7 | 12.2 | 11.6 | -0.6 | 101 | 106 | + 5 | 269 | 316 | +47 | 329[a] | 393 | +64 |
| 173465 | WF1S | 2/12/57 | 1 | 43.6 | 43.6 | 0.0 | 13.6 | 12.6 | -1.0 | 106 | 106 | 0 | 299[a] | 316 | +17 | 347[a] | 392 | +45 |
| 173466 | WF1S | 2/14/57 | 1 | 41.1 | 41.0 | -0.1 | 12.5 | 11.8 | -0.7 | 109 | 115 | + 6 | 273 | 279 | + 6 | 332[a] | 376 | +44 |
| Current Mill Average: | | | | 42.2 | 41.9 | -0.3 | 12.7 | 12.0 | -0.7 | 106 | 109 | + 3 | 280 | 304 | +24 | 336 | 387 | +51 |

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note. All "current mill average" data are calculated from the totals of the individual readings.

COMPARISON OF INSTITUTE AND MILL DATA—FEBRUARY 1 THROUGH FEBRUARY 28, 1957 (continued)

TABLE XL

MILL P -- 42-LB. LINERBOARD

| File No. | Finish | Date Made | Mch. No. | Basis Weight, lb. | | | Caliper, points | | | Bursting Strength, p.s.i. gage | | | Elmendorf Tear, g./sheet | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | In | | | Across | | |
| | | | | IPC | Mill | Diff. | IPC | Mill | Diff. | IPC | Mill | Diff. | IPC | Mill | Diff. | IPC | Mill | Diff. |
| 173350 | W. | 1/ 4/57 | 4 | 42.5 | 42.6 | +0.1 | 12.9 | 12.5 | -0.4 | 110 | 112 | + 2 | 366[a] | 395 | +29 | 390[a] | 390 | 0 |
| 173351 | W. | 1/21/57 | 2 | 42.2 | 42.2 | 0.0 | 12.9 | 12.5 | -0.4 | 105 | 109 | + 4 | 374[a] | 374 | 0 | 357[a] | 369 | +12 |
| 173410 | W. | 1/31/57 | 4 | 42.9 | 42.8 | -0.1 | 12.8 | 12.5 | -0.3 | 112 | 112 | 0 | 381[a] | 360 | -21 | 386[a] | 387 | + 1 |
| 173411 | W. | 2/ 6/57 | 4 | 43.2 | 42.6 | -0.6 | 13.2 | 12.8 | -0.4 | 112 | 113 | + 1 | 365[a] | 333 | -32 | 379[a] | 363 | -16 |
| Current Mill Average: | | | | 42.7 | 42.6 | -0.1 | 12.9 | 12.6 | -0.3 | 110 | 112 | + 2 | 372 | 366 | - 6 | 378 | 377 | - 1 |

TABLE XLI

MILL Q -- 42-LB. LINERBOARD

No Samples Submitted

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

## COMPARISON OF INSTITUTE AND MILL DATA--FEBRUARY 1 THROUGH FEBRUARY 28, 1957 (continued)

### TABLE XLII

### MILL S -- 42-LB. LINERBOARD

| File No. | Finish | Date Made | Mch. No. | Basis Weight, lb. | | | Caliper, points | | | Bursting Strength, p.s.i. gage | | | Elmendorf Tear, g./sheet | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | In | | | Across | | |
| | | | | IPC | Mill | Diff. | IPC | Mill | Diff. | IPC | Mill | Diff. | IPC | Mill | Diff. | IPC | Mill | Diff. |
| 173361 | W.F. | 1/30/57 | - | 44.8 | 44.6 | -0.2 | 13.1 | 12.9 | -0.2 | 119 | 113 | - 6 | 340[a] | 345 | + 5 | 391[a] | 400 | + 9 |
| 173362 | W.F. | 1/31/57 | - | 42.6 | 41.9 | -0.7 | 12.8 | 12.5 | -0.3 | 110 | 106 | - 4 | 372[a] | 337 | -35 | 366[a] | 341 | -25 |
| 173363 | W.F. | 2/ 1/57 | - | 44.1 | 43.8 | -0.3 | 12.8 | 12.3 | -0.5 | 110 | 111 | + 1 | 353[a] | 317 | -36 | 395[a] | 373 | -22 |
| 173389 | W.F. | 2/ 6/57 | - | 43.5 | 44.4 | +0.9 | 13.1 | 13.0 | -0.1 | 114 | 114 | 0 | 382[a] | 356 | -26 | 380[a] | 396 | +16 |
| 173390 | W.F. | 2/ 7/57 | - | 42.8 | 43.1 | +0.3 | 13.2 | 13.0 | -0.2 | 110 | 114 | + 4 | 390[a] | 344 | -46 | 371[a] | 360 | -11 |
| 173391 | W.F. | 2/ 8/57 | - | 40.6 | 40.8 | +0.2 | 13.2 | 12.6 | -0.6 | 100 | 102 | + 2 | 331[a] | 292 | -39 | 351[a] | 336 | -15 |
| 173453 | W.F. | 2/13/57 | - | 44.2 | 44.8 | +0.6 | 12.9 | 12.2 | -0.7 | 109 | 113 | + 4 | 377[a] | 361 | -16 | 377[a] | 393 | +16 |
| 173454 | W.F. | 2/14/57 | - | 44.2 | 44.4 | +0.2 | 13.0 | 12.5 | -0.5 | 116 | 116 | 0 | 345[a] | 353 | + 8 | 388[a] | 380 | - 8 |
| 173455 | W.F. | 2/15/57 | - | 43.4 | 43.1 | -0.3 | 13.1 | 12.3 | -0.8 | 111 | 106 | - 5 | 361[a] | 355 | - 6 | 373[a] | 364 | - 9 |
| Current Mill Average: | | | | 43.3 | 43.4 | +0.1 | 13.0 | 12.6 | -0.4 | 111 | 111 | 0 | 361 | 340 | -21 | 377 | 372 | - 5 |

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note All "current mill average" data are calculated from the totals of the individual readings.

COMPARISON OF INSTITUTE AND MILL DATA--FEBRUARY 1 THROUGH FEBRUARY 28, 1957 (continued)

TABLE XLIII

MILL R -- MISCELLANEOUS

| File No. | Finish | Date Made | Mch. No. | Basis Weight, lb. | | | Caliper, points | | | Bursting Strength, p.s.i. gage | | | Elmendorf Tear, g./sheet | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | In | | | Across | | |
| | | | | IPC | Mill | Diff. | IPC | Mill | Diff. | IPC | Mill | Diff. | IPC | Mill | Diff. | IPC | Mill | Diff. |
| **47-lb. Drum Linerboard** | | | | | | | | | | | | | | | | | | |
| 173337 | WF2S | 1/25/57 | 2 | 47.8 | 48.2 | +0.4 | 14.2 | 13.8 | -0.4 | 90 | 86 | - 4 | 379[a] | 398 | +19 | 383[a] | 398 | +15 |
| 173417 | WF2S | 2/11/57 | 2 | 47.4 | 47.8 | +0.4 | 13.9 | 13.5 | -0.4 | 90 | 94 | + 4 | 409[a] | 413 | + 4 | 389[a] | 442 | +53 |
| 173481 | WF2S | 2/19/57 | 2 | 47.2 | 48.2 | +1.0 | 14.4 | 13.6 | -0.8 | 91 | 92 | + 1 | 370[a] | 400 | +30 | 381[a] | 450 | +69 |
| Current Mill Average. | | | | 47.5 | 48.1 | +0.6 | 14.2 | 13.6 | -0.6 | 90 | 90 | 0 | 386 | 404 | +18 | 384 | 430 | +46 |
| **38-lb. Linerboard** | | | | | | | | | | | | | | | | | | |
| 173336 | WF1S | 1/23/57 | 2 | 39.9 | 40.9 | +1.0 | 12.6 | 12.3 | -0.3 | 99 | 98 | - 1 | 279[a] | 302 | +23 | 303[a] | 338 | +35 |

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note. All "current mill average" data are calculated from the totals of the individual readings.